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PAPER TRADE JOURNAL
ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-THIRD YEAR

Published Every Thursday by the
LOCKWOOD TRADE JOURNAL CO., INC.

LESLIE R. PALME' PRESIDENT — GEO. S. MACDONALD VICE-PRESIDENT & TREAS — F. K. HOPPIE SECRETARY

10 EAST 39TH ST. N.Y. U. S. A

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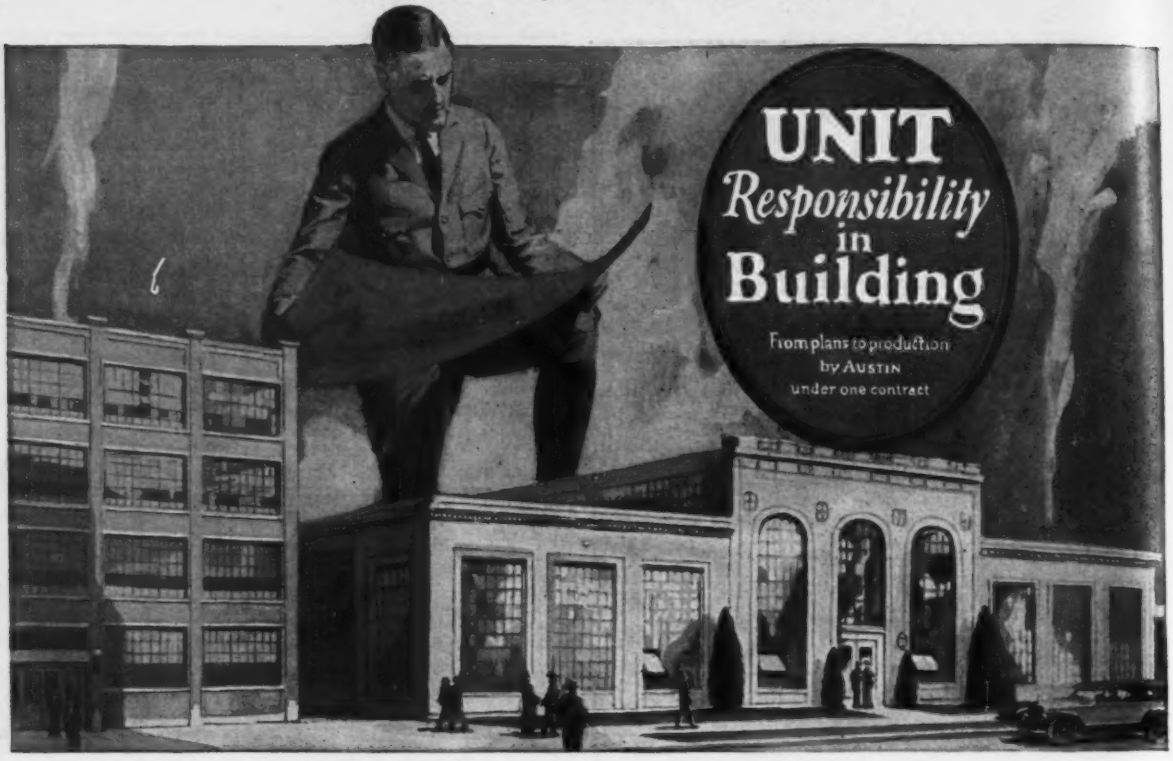

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PAPER

Vol. LXXX. No. 26 — Thursday, June 25, 1925

The Magazine of the Paper Industry

Big Mill Improvements in Kalamazoo District

Expanding Concerns Include Kalamazoo Paper Co., Standard Paper Co. and Bradford Paper Co. of Kalamazoo and MacSimBar Paper Co. and Bardeen Division of Allied Paper Mills of Otsego—Improvements Represent Immediate Outlay of $500,000 to $600,000 and Will Require Before Completion Expenditure of Nearly $2,000,000

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., June 22, 1925.—Five major expansion programs by as many paper mills continue to constitute the major items in the industrial development of the Kalamazoo valley district this season. Three of the projects under way are in Kalamazoo and two in Otsego. They represent an aggregate immediate outlay of $500,000 to $600,000 and part of contemplated improvements that will require before final completion the expenditure of nearly $2,000,000.

Kalamazoo Paper Co. Builds Stock House

H. L. VanderHorst is pushing ahead rapidly with the new stock house for the Kalamazoo Paper Company. He has reached the third story and will have the building under roof within 40 to 50 days. This structure of reinforced concrete is made necessary by the addition of another machine and auxiliary equipment to mill No. 3.

Standard Paper Co. Builds Conversion Plant

The Standard Paper Company's new steel stock house and conversion plant is moving ahead rapidly. R. B. Boyer Company has this contract and is about ready for the roof. The building has a massive steel frame or upright and will have steel sides and concrete flooring.

Bradford Paper Co. Installs Waldron Coaters

C. A. Bradford, president of the Bradford Paper Company, has a force of men engaged in placing the third and fourth Waldron coaters that are to constitute the equipment of that mill on Fulford street. The second super-calender, a 66-inch Norwood Engineering machine, is in place and running full time. This plant has picked up a splendid line of orders and is running steadily on a 24 hour a day basis. No further building is necessary at this plant, further improvements being in the nature of the additional equipment.

The two projects at Otsego under way are the turbine house for the MacSimBar Paper Company and the new boiler house for the Bardeen Division of the Allied Paper Mills. These two units are going forward rapidly and will represent an outlay of fully $100,000 for the buildings, with an added $150,000 to $200,000 for equipment. Both buildings will be under roof long before the fall season sets in.

Belgo to Sell at $65 Per Ton in 1926

Following rumors for the past week or two as to the probable decision of manufacturers on the price of news print, a most unusual announcement has been credited by the *Montreal Gazette* to H. Biermans, president of Belgo-Canadian Paper Company. Mr. Biermans is reported as stating that his company has notified its customers that there will be a cut in the price of news print from $70 to $65 per ton beginning the first of next January. He is further reported as intimating that so far as the company is aware its customers are content to continue paying the current price of $70 per ton for the last half of 1925. There is no little puzzlement, however, at the announcement of a new price for a period of starting over six months hence, such action having no precedent here. The expectation that production might overlap on consumption and thus bring ease in the price of the commodity is the reason why news print stocks have not moved up with the remainder of the market in keeping with their earnings record of the past three years, or their financial position. The market thus seems to have discounted a reduction in price of news print, which, six months ahead as it now seems to be, may be counted upon to hasten plans for the amalgamation of Canadian companies with the view to further reducing costs, and placing the manufacturers in a position to preserve stability by regulation of production. Curiously enough the announcement was made on the same day upon which the Dominion Government, after extremely mature consideration, decided to ratify the Australian trade treaty with this country. This treaty will make news print from Canada free of entry into the Sister Dominion, as compared with a present import duty of three pounds per ton. Australia consumed approximately 100,000 tons of news print per year, and is gradually increasing its requirements of the commodity. It is estimated that under the treaty, Canada should get at least half of this market, which would mean around $3,000,000 to $3,500,000 per year for the Canadian news print industry.

Glossary of Paper Terms for Exporters

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., June 24, 1925.—A "Glossary of Paper Terms and Instructions to Exporters" has just been compiled and published by the Paper Division of the Department of Commerce under the direction of O. M. Butler, former Acting Chief of the Division.

The Glossary is for the guidance in properly listing and classifying exports of paper and paper products on shippers export decorations. Insofar as is known, this is the first time that a compilation of this kind has ever been published. Copies of the Glossary may be obtained by application to the Paper Section.

Summer Quiet Prevails in Philadelphia Paper Trade

Orders Are Not Now of an Impressive Character and Show that Consumers Are Still Buying Only for Immediate Requirements — Coarse Paper Division of Philadelphia Paper Trade Discusses Business Conditions at Monthly Meeting—John A. Murphy Canvasses European Rag Markets

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, Pa., June 22, 1925.—Except for the seasonal demand for some of the grades of the coarse papers and the activity in special lines of the fine paper group the trade has settled into quieter channels of customary summertime quietude. Whatever orders are secured are not of an impressive character and in lots that show the consumer still is buying only for immediate requirements. It is only with persistency and skillful salesmanship that any appreciable business is to be secured and few of the dealers report tonnage purchases, most of this class of trade having placed their demands earlier in the season. Prices are holding steady despite the quieter trend.

Seasonal Sales for Fine Papers

Most of the buying among the fine paper group is for those grades of bonds and ledgers consumed in the manufacture of commercial stationery such as bookkeeping devices and for accounting and record keeping, which just now are in demand for the closing of the semi-annual books and the opening of records for the last half of the year after inventory days have passed. The larger publishing houses are chiefly purchasers of the medium priced book papers, but are confining their orders to immediate needs rather than for stocking for future consumption.

Specialties in Coarse Papers Sought

Specialties in the coarse papers are the most active of this division and though the demand is broadly scattered orders are confined to replenishing depleted supplies only. The large industrial enterprises in the textile trade have been buying more freely than for many months in preparation for the summer proportion for fall supplies. Tissues and some of the fibers are perhaps the least active of the list. Prices, which are now at rock bottom quotations are holding firmly at the levels of the early year.

Little Demand for Stocks

The mills are consuming very little of the local raw materials and but small quantities of the popular grades of either rags or paper stocks are accumulated in the warehouses. A few orders are placed for immediate consumption but like the finished products are not of an impressive character.

Coarse Paper Dealers Meet

With ten firms represented at the June meeting of the Coarse Paper Division of the Philadelphia Paper Trade Association, held in the Bourse last Thursday, the chief topic of interest was that of the trend of business. All agreed that the present demand is being fairly well maintained and that there has been an improvement over that of last month. In view of the general business conditions the coarse paper distributors were assured that they are enjoying a fairer amount of business than many other industries and are looking forward to a steady improvement throughout the summer months. Owing to the fact that the customary meeting room in the Bourse was otherwise occupied the paper dealers were obliged to hold their session in the public restaurant and in consequence were obliged to postpone the more important matters pertaining to Association affairs that could not be discussed openly. The host of the occasion was Simon Walter of S. Walter, Inc.

Waste Dealers Hold Outing

The Philadelphia Cotton Waste Exchange held its annual outing at the Brookline Square Club, last Thursday when more than 100 representatives of the local organization and the Boston, Hartford, New York, Atlanta and New Orleans, Charlotte, N. C., Savannah and Cincinnati Associations gathered for a day of sports and other entertainment on the spacious grounds of the Club. There was besides the dinner at the Club quarters a baseball contest with the Jewish dealers lined up under the Sons of Benjamin Team and the Irish-Americans Teamed as the Sons of Erin the honors of the Diamond going to the former in a large scoring over their Celtic opponents. Among the representatives from the paper stock trade was John J. O'Leary, manager of the Daniel I. Murphy Company, who put across some good hits for the Erin Boys. Among those at the speakers table were Congressman Joseph Walworth, of New Jersey and Joseph Hughes of the Kelly Hughes Company. The entertainment committee was composed of Joseph Hughes, Albert S. Horrocks, and John Durkee of Oscar Smith Sons Company.

Paper House of Penn. at Swarthmore Meeting

Among the associates of the Philadelphia trade who journeyed to the mill and merchant men's meeting at the Swarthmore Paper Company's mills at Mittineagues, Mass., during the week were Raymond J. Considine and Norbert A. Considine of the Paper House of Pennsylvania. At this meeting was discussed the new advertising campaign which the Swarthmore Co. will conduct on the four group merchandising plan which divides the paper distribution into four distinct types of Every Day, Distinguished, Prestige and Decorative.

Foreign Rag Statistics Compiled by J. A. Murphy

A thorough canvass of the European rag markets is being made by John A. Murphy, head of Daniel I. Murphy, Inc., Brown Building, 4th and Chestnut streets, who just now is making a tour of Germany preparatory to a trip through England, France, Holland and Belgium after a survey of other countries on Continental Europe. Mr. Murphy has completed his survey of the southern parts of Europe having made a tour through all the important rag centers of Italy, Austria-Hungary, Slovakian territory and Switzerland. It is the purpose of the head of the Murphy company to inspect all these rag markets in order to sescure the best possible service for the mills in this country and to compile statistics of the foreign markets according to their grading qualities so as to avoid the importation of inferior stocks from those centers where no attention is given to the proper grading and sorting of rags as specified by American regulations recently adopted by the various paper stock associations scattered throughout the country for the standardization of packing. The local offices of the Murphy company have been developing an extensive wood pulp business, the newest of departments to be installed in its paper stock business. When the survey of the rag industry in Europe is completed the Murphy company will have on its list for importation stocks from the most reliable houses of the foreign markets, and will concentrate upon making the rag department an efficient and broadly patronized division of its business.

D. S. Walton & Co. Opens Local Offices

The Philadelphia territory trade requirements of D. S. Walton and Company, New York, are being expanded under the local offices of that firm which have been opened in the Bourse. The firm, has acquired Room 487 Bourse Building as its local quarters and is expanding the business for its various lines of coarse papers

under the management of Wilmer H. Randel, who is in charge of the Quaker City branch. The trade needs of Philadelphia and adjacent territory are being featured through the local branch.

Royal, Taggart, Bates Inc., Make Flour Bags

An extensive line of flour bags is being produced by Royal Taggart, Bates, Inc., 7th and Grange streets, the corporation formed for the purpose of specializing in this class of bag manufacture. The corporation through a separate concern from that of the Thomas M. Royal Company has among its membership the same personnel that comprises the latter concern. They are President Thomas M. Royal, Vice President A. M. Bates, Secretary B. C. Betner, and Assistant Secretary and Treasurer S. E. Gibson. There are produced all the sizes in paper flour sacks from the 2 pound to the 50 pound bags The flour bags are manufactured in the mommoth factory which the Royal Company purchased more than a year ago at 7th and Grange streets and to which has been removed the entire bag plant of that company, devoted to the manufacture of all grades and lines of bags.

Enterprise Paper Co. Makes Displays

Outstanding in the displays of paper wares made at the annual convention of ice cream dealers held in this city a few days ago, was the commodious and attractive booth containing the exhibit of the Enterprise Paper Company, 3rd and Callowhill streets. The convention held at the Breyer plant, 43rd and Woodland avenue, said to be the largest ice cream making plant in the world with a capacity of 12,000,000 gallons, was visited by more than 30,000 dealers in New Jersey, Delaware, Maryland and Eastern Pennsylvania and before these delegates the Enterprise Company placed an exhibition of all the paper wares in the market adapted for use at the fountain, for ice cream containers and other uses connected with that industry. Among the wares on display were the entire Tulip Line, Bloomer Brothers merchandise, the Stone and Sunshine Straws, Purity Paper Cans, the Perfect Package Company, food containers, Vortex Line of Fountain Supplies, and Folding boxes made by the Varpery Press. A special distribution of Tulip Squeeze, Sherbert, was served to the guests by the Enterprise Company, sales manager A. B. Kehr, who personally supervised the exhibit.

Curtis & Bros. Inc., Campaign on Offset Papers

Curtis & Bros., Inc., whose Philadelphia headquarters are at 16 S. 5th street, have been conducting a special campaign on the Curbro Offset papers, manufactured by the firm at its Nonatum Paper Mills, Newark, Del. These papers were perfected after many years of experimentation and now are being produced in a variety of tints and white. They are being exploited among the engraving, lithographing and other trades using offset papers. One of the specimens of actual work accomplished on these papers is being distributed by the company and shows a commercial job in 10 colors made for a prominent nationally known firm,—Curtis and Bros. securing several hundred extra prints of this handsome work, for its own purposes.

Pine Bluff May Get Paper Mill

[FROM OUR REGULAR CORRESPONDENT]

PINE BLUFF, Ark., June 22, 1925.—A meeting of the directors of the Southeast Arkansas Development Association was held at the Hotel Pines last week, when Stephen J. Adams met with the body and discussed a plan for a paper mill and corn products factory, which carries with it a colonization scheme. Mr. Adam said that he plans to start similar projects in Mississippi and would, if conditions are found favorable, start a similar project near Pine Bluff.

President K. G. Morley of the association named a committee consisting of Charles E. Taylor, W. N. Trulock and W. C. Hudson, to take the matter up with Mr. Adam.

Simplification of Binder Boards

Concluding his address on "Simplification of Binder Board Products" at the meeting of the Binder Board Manufacturers Association on Tuesday of this week at the Canadian Club, Hotel Belmont, New York, William A. Talley of the Department ot Commerce, Washington, D. C., said:—

"Here is an industry with an output of several million dollars annually and with a proportionately large diversity of sizes, thickness and finishes. Custom, practice, tradition and competition have all combined to build up an unnecessarily large variety of products with a consequent lessening in profits to manufacturer and distributor, and an increasing in cost to the consumer. And yet a reduction in the present number of units carried would undoubtedly mean a reduction in manufacturing costs, overhead, warehouse space, interest charges, insurance premiums, etc, thus releasing an appreciable amount of capital now tied up in slow-moving items and so proving of material benefit to manufacturer, distributor and consumer.

"There can be little doubt that the present situation calls for immediate action when one large manufacturer frankly states that during the past year he has been compelled to turn out his product in 77 sizes and 37 thicknesses, varying from 1 to 27 thicknesses per size. The size of the sheet has varied from 19 x 26 to 35 x 48 not only by full inches by half and even quarter inches; and the thicknesses have varied by as low as .003 of an inch. And yet two-thirds of this firm's output is based on 5 standard sizes made in 25 thicknesses; while non-standard lines not only demand special sizes but some 9 special thicknesses as well. This man feels, and rightly so, that he would be much better off could he reduce his line to 12 sizes and some 20 thicknesses.

"Again another manufacturer tells me he nominally carries only 4 standard sizes in 12 standard thicknesses but is actually compelled to manufacture almost any size up to 40 inches in width and 70 inches in length. If this variation was limited to even full inch steps there would be a total of some 18 widths and 40 lengths which could easily be combined to give over a hundred different sizes; and this regardless of the variation in thickness.

"Still another firm issues a gauge list showing only two standard sizes, each in four different finishes and with a total of some 48 different thicknesses varying as little as .001 inch—an absolutely futile difference from the standpoint of durability or appearance. Yet I have been told that this firm puts practically no limit on the number of its sizes.

"If this be the case with only three firms would it not be, to say the least, illuminating to find out what the condition of the industry as a whole is? That there are genuine economies to be achieved through the simplification of present excessive varieties your own knowledge of the industry can tell you far better than any words of mine. And surely there can be no need of stressing to a group of modern business men the golden returns which will be brought in by longer runs, reduction in time lost in set-ups, lower overheads, smaller stocks, the releasing of capital tied up in slow-moving items, etc. All this means a better product, more satisfactory service to the customer and a reduction in cost all along the line.

"Specifically then let me urge you to endorse the project. Lend it your hearty support and active cooperation. Authorize the appointment of a committee who can at once begin the study of the true needs of the industry. Then can we all unite in carrying the program to a happy conclusion, thus insuring to all an early benefit from the simplification of binder board products.

Buys S. Y. Beach Mill at Seymour, Conn.

The Paper Products Manufacturing Company, of Swarthmore, Pa., has purchased the S. Y. Beach Paper Mill at Seymour, Conn. and will make the same variety of paper that it is making at its plant at Swarthmore.

Quebec Leases Large Timber Limits in Chicoutimi

Feature of Big Deal Is That Lessees Within Five Years Must Be Manufacturing Within Limits of Province from Logs Cut in Limits, Pulp and Paper at the Rate of 150 Tons Daily—Agreement Just Concluded Calls for Erection of News Print Mill in Manitoba to Cost $2,500,000

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., June 22, 1925.—Involving a deal which is to bring to the Province of Quebec at least $1,000,000, in addition to a large revenue from timber dues each year, official advice was issued on Friday last, following a meeting of the Provincial Cabinet, that the leasing of 1,900 square miles of timber limits along the Peribonka and Nicauda rivers in the Chicoutimi district would take place on the 26th of July next, at the Parliament building in Quebec City. A feature of the sale is that within a period of five years from the signature of the contract, the lessee must be manufacturing within the limits of the province, with the logs cut on those limits, pulp and paper at the rate of ten tons per hundred miles of forest, which means a production of 150 tons daily. It is known that at least two of the prospective builders possess some mills in the district, and it is generally understood that Price Brothers are interested. Three days before the auction, a deposit of $100,000 for the 1,500 square miles along the Peribonka and $30,000 for the limits along the Nicauda must be made. The conditions of the leasing set the price at $400 a square mile, payable in three instalments, the first cash, the second at the end of one year, and the third at the end of the third year, with interest of four per cent. This means that for the Peribonka river rights the sum involved is $900,000 and for the other $100,000. The area of the limit to be leased will include all the available land in the basin of the Pentecote river, but the total surface must be determined by the survey which must be done at the expense of the lessee within twelve months. The lessee is not authorized to cut more than 80 per cent per annum of the annual increase in the natural production. No trees must be cut within three chains from the banks of rivers and streams.

Over Million Dollars for Rights

Dr. E. A. Smith, chairman of the New Brunswick Electric Power Commission, states that a settlement has just been arrived at with the International Pulp and Paper Company whereby the latter will receive $1,200,000 for their rights at Grand Falls, N.B., which the New Brunswick Government has decided to develop. Dr. Smith added that the papers are being forwarded to Washington and on their arrival there it is expected that the order of the International Joint Commission will be officially issued. The plans and specifications for construction work on the Grand Falls hydro plant will be ready by June 24 and tenders will be called immediately after that date so that work on the power plant may be started as soon as possible, Dr. Smith said.

News Print Mill in Manitoba

Travers Sweatman, K.C., who has been conducting negotiations with the Federal Government in regard to the establishment of a news print mill in Manitoba, has given out the statement that a contract has been signed between the Federal Government and J. D. McArthur, who has been working on this project for the last two or three years. The agreement calls for the erection of a pulp and paper mill at a cost of not less than $2,500,000; construction to begin within 60 days of the execution of the contract and the mill to be in operation within 18 months. The contract stipulates that there must be a daily output of at least 100 tons of pulp, of which at least 50 per cent must be converted into news print at the mill. No cutting of pulpwood is to be started until at least $1,000,000 has been expended on the mill. While the company is a local one incorporated by Dominion charter and while J. D. McArthur will continue to be president, it will be operated by the Spanish River Pulp & Paper Co. In connection with the selection of timber, the order-in-council passed by the Government provides as follows:—

"The company shall retain and operate pulpwood berth No. 1, but that in lieu of pulpwood berth 1A, which embraces an area of approximately 1,080 square miles, in one block lying to the north of berth No. 1, they shall be permitted to substitute therefor other tracts, which . . . . . shall be selected on the following conditions:

"(a) That the tracts to be selected shall each be not less than 30 square miles in area; that the total number of tracts shall not exceed 30; that the aggregate area of such tracts shall not exceed 1,080 square miles, the area of the present berth; and that the selections shall be made by the forestry branch of the department of the interior, in conjunction with the Manitoba Pulp and Paper Company.

"(b) That the progress in selections of the tracts shall be from south to north; provided, however, that available blocks lying to the east of Lake Winnipeg as far north as the said township 46 shall be selected before any selections are made of tracts lying to the west of Lake Winnipeg; in the event of selections in the area to the west of Lake Winnipeg being necessary, progress in selection there also shall be from south to north."

Hydro Plant Near Lake St. John to Develop 600,000 h.p.

What Premier Taschereau termed the greatest industrial development ever projected in Quebec Province will be started without delay in the Lake St. John district as a result of the approval this week of the development of 600,000 h.p. at the falls known as Chute a Caron, a few hundred yards from the Grand Decharge damming work now in progress on the Saguenay River. The agreement was reached last week by the Government and interests including Messrs. J. B. Duke, the American magnate; and E. H. Davies, the controlling interest in one of the largest aluminum companies in the world. According to plans, between $75,000,000 and $90,000,000 will be expended on power development and the construction of a plant for the manufacture of aluminum.

In an official declaration, Premier Taschereau stated: "The Cabinet today approved the plans submitted by some interests to the Government in connection with the development of the Chute a Caron and which involve an expenditure set tentatively at $75,000,000.

"Not only will this huge amount be expended in the Lake St. John district, but the development has such a magnitude that within a few weeks the promoters will start building a model town, with a thousand houses to accommodate the men employed on the preliminary work.

"In a statement which has been made to the Government, we are informed that it is the intention to lodge a population of about 6,000 families within a short period, this meaning, at an average of five per family, about 30,000 souls.

"Twenty boats will be kept in operation on the Saguenay to meet the requirements of the company.

"In giving their reasons for coming here, the promoters told the Government that it was the great power available and the good labor supply which had attracted them.

"They have also accepted our condition forbidding the export of water power. As was the case for the Grande Decharge, the Chute a Caron is owned by the interests referred to, so that they only had to submit plans."

Paper Demand in Toronto Only Fairly Satisfactory

No Great Changes in Conditions are Expected Until After the Holidays—Situation, However, is Fundamentally Better Than It Is Frequently Represented—Frequent Reports Circulated Regarding News Print Mills To Be Built—Canadian Paper Box Manufacturers Association Meets at Niagara Falls.

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ont., June 22, 1925.—Varying reports are received in the matter of trade and in some lines there is a slight improvement but, generally speaking, business is not satisfactory and it is not expected that any great change will occur until after the holiday period. Jobbers complain that they have to carry big and well selected stocks to do business, the tonnage being far too heavy for the smallness and variety of the orders.

One wholesaler said that the first five months of the year have been ahead in volume and receipts of the corresponding period of last year although profits are not so large and competition is much keener. He stated that business conditions are not normal when big profits are made without an effort, and added "normal times, days of struggle and effort to succeed are with us now."

In wrapping paper things have tightened up a bit and prices are firmer and trade steadier. In other lines there are slight improvements but nothing of a permanent character. One week will be exceptionally good in volume and value and the next will witness a decided falling off, neutralizing the effect of the increase and leaving matters at the end of each month about as they were.

While the members of the paper trade are not despondent, they appear, at least, to exhibit little enthusiasm. The expected change of a decided betterment has been so long in arriving, that there is a disposition to take matters as they are, especially during the present warm weather and the holiday season. What big business is in progress is highly competitive and not always profitable.

Paper dealers from the west report that the prospects for an excellent crop are very bright and, if no untoward circumstance occurs, a second satisfactory harvest would put the pariric provinces on their feet; and this would mean a great deal to eastern Canada. However, conditions in the paper and other avenues ot trade are not so disappointing as some picture and things are better fundamentally than they are presented.

The Future of News Print Mills

Scarcely a week goes by but a report is circulated that another news print mill is about to be erected. If all the projects that are under contemplation are carried out, a serious state of affairs would be encountered in finding an outlet for the greatly augmented tonnage. Now, on investigation, it is learned that there are several news print projects which will be held up until 1926 at any rate, or until such time as those behind the enterprises are assured ot a profitable market for their production. At least, two large concerns will not go ahead this season and manufacturers are in favor of keeping their prices up and not starting any cut rate proposition, the same as has been done in a few other trades.

Canadian Paper Box Convention

The tenth annual convention of the Canadian Paper Box Manufacturers Association will be held at Hotel Clifton, Niagara Falls, Ont., on Tuesday and Wednesday, June 22 and 23. The officers of the Association are George Hancock, Galt, president; J. L. Constantineau, Montreal, vice president; S. J. Frame, Toronto, secretary-treasurer. Leaders of the industry will give addresses on important topics. Among the live questions to be discussed, is a resolution to the effect that "the time work method of paying employees is better than the piece work rate." Representatives will be heard on both sides. George F. Barber, publicity secretary and marketing specialist of the National Paper Box Manufacturers of the United States, will speak on "Confidence inspired by attractive packages." Rev. Dr. Charles P. Stewart, of Buffalo, N. Y. will give an address on "Confidence."

Canadian Nashua Co. is Busy

The Canadian Nashua Paper Company, Peterboro, Ont., which is associated with the Nashua Gummed and Coated Paper Company, of Nashua, N. H., and the Gummed Paper Manufacturing Company of Narborough, Eng., has been in operation for five years and is very busy at the present time in the production of gummed and waxed papers. The gerater part of the wax used is refined in Canada with the exception of the highest test variety.

The company is working overtime now and has laid out tennis courts, volley ball and baseball grounds for the employees on the spacious grounds, which are also adorned with a number of trees. When night work is required as at present, the force gets off at four-thirty each day and is allowed two and a half hours of freedom before again taking up work. This has made the company's plan a most popular one.

Notes and Jottings of the Industry

A. L. Dawe, of the Canadian Export Paper Company, Montreal, and Edward Beck, manager of the Canadian Pulp and Paper Company, Montreal, were in Toronto on business last week.

Meredith F. Montague, of New York, sales manager of the Standard Paper Manufacturing Company, Richmond, Va., was a caller upon the trade in Toronto lately.

R. I. Finlay, of Toronto, President of the Canadian Paper Trade Association, who has been confined to his house for some time with an affection of the eye, is able to resume his duties.

Fred L. Ratcliff, President of the Ratcliff Paper Company and former president of the Rotary Club of Toronto, is attending the great Rotary convention in Cleveland, Ohio.

John Martin of Winnipeg, former president of the Canadian Paper Trade Association, spent the past few days in Montreal and Toronto calling upon many friends in the industry.

The Provincial Paper Mills, Toronto, will make an exhibit of various lines of paper turned out at their plants at the New Zealand and South Seas International Exhibition, which will be held at Dunedin, N. Z.

John S. Ebbels, formerly with the American Writing Paper Company, Holyoke, Mass., has joined the sales staff of Paper Sales, Limited, and has entered upon his new duties.

John G. Sutherland of the George H. Mead Sales Company, Dayton, Ohio, formerly of Toronto, was renewing former friendships in the city during the past few days.

John Hewitt, Jr., president of Paper Sales, Limited, spent the past week at the eastern office of the organization in Montreal.

George Davidson, manager of sales for the Howard Smith Paper Mills, Montreal, formerly of Toronto, and wife, were in Toronto for a few days last week.

C. Ernest French, of the Howard Smith Paper Mills staff, Toronto, has gone on a business trip to the Pacific Coast and will be absent a month.

The Ontario government is employing twenty-six students of the Faculty of Forestry, University of Toronto, during the summer months on forest survey work, south of the transcontinental railway line and midway between Hearst and Cochrane. Other students are engaged in forestry for the Abitibi Power and Paper Company, the Spanish River Pulp and Paper Mills and the Wayagamack Pulp and Paper Company.

New York Trade Jottings

On and after June 29 The John F. Sarle Company of 85-87 John street will be located at 46-50 Hudson street.

* * *

V. D. Simons, paper mill engineer, Chicago, was among the trade visitors in New York during the week.

* * *

The Box Board Association held its regular meeting at 11 o'clock Tuesday morning of this week, at the Roosevelt Hotel.

* * *

The St. Regis Paper Company has removed its New York offices to 49 Wall street, telephone Hanover 0930.

* * *

Fred O. Enders of Buckley, Dunton & Co., 75 Duane street, has been in Europe on a business trip for the last month. He is expected back in New York next week.

* * *

L. M. Alexander, president of the Nekoosa-Edwards Paper Company, Inc., Port Edwards, Wis., and Mrs. Alexander were among the visitors in New York last week.

* * *

Parker K. Baird, chemist in the Forest Products Laboratory at Madison, Wis., visited the offices of the Technical Association of the Pulp and Paper Industry last week.

* * *

W. G. MacNaughton, Secretary of the Technical Association of the Pulp and Paper Industry, left Tuesday of this week to attend the annual summer meeting of the Technical Section of the Canadian Pulp and Paper Association at Ottawa, Ont. Mr. MacNaughton will return to his office at 18 East 41st street, in about ten days.

* * *

Frank O. Sullivan, formerly director of the photo-lith divicision of The F. Wesel Manufacturing Company, Inc., Brooklyn, N. Y., is now associated with the Eastern Manufacturing Company as director of the offset paper division. Mr. Sullivan will devote his wide knowledge of offset printing to the development of this division, which will handle an offset book paper and an offset bond. Mr. Sullivan has long been engaged in the printing and publishing field and has many friends in the trade. He was formerly editor of "The Offset Printer."

* * *

This year's Annual Outing, June 13, 1925, of Charles F. Hubbs & Co. was a huge success, and all the salesmen and executives, about 60 in number, at the end of the day, declared it the best ever. Everyone assembled at the main office, 389 Lafayette street, at 8:30 a. m., crowded the bus to the limit of its capacity, wondering where they were going, as the location of the outing grounds was kept secret by H. S. Brooks, L. A. Hughes, K. Lyons, W. Wild, Wm. H. Meyer, Jr., the committee. After about an hour and a half's ride through the well-wooded roads of Long Island, the destination developed to be Karatsonyi at Glenwood Landing. Three events took up the remainder of the morning, and after lunch there were two other events, and the baseball game, where in order to save the hands and fingers of inexperienced players, an indoor baseball was used. This proved to be a very amusing innovation. The dinner at night, brightened by good entertainers, closed the day of sport for all.

Carey Faction to Nominate Ticket

ALBANY, N. Y., June 22, 1925.—Definite information was secured here to the effect that a complete ticket, from top to bottom, will be nominated by the so-called Carey faction of the International Brotherhood of Papermakers. It has been rumored for some time past that a bitter factional fight was in prospect at the coming election of officers. According to reliable information the Carey ticket will be announced on or about July 15. Just who will head this ticket has not yet been decided but it is said that if Jeremiah Carey, former president of the Brotherhood, expressed the desire, that he would, no doubt, be nominated for the office of president. Mr. Carey has given no indication, as yet, that he desires the nomination and it is possible that some other person favorable to him may be named.

Both the Carey faction and the administration forces, headed by M. H. Parker, present head of the Brotherhood, are frank in expressing the belief that the coming fight will be one of the most notable in the history of the organization. The bitterness resulting from the contest over the presidency of the union two years ago, which has smouldered since that time, will be quickly fanned into flames in the coming campaign.

Swedish Pulp Mill Burns

Word has been received here of two recent fires which did extensive damage recently to the Iggesund pulp mills in Sweden. The first fire, the cause of which has not been ascertained, destroyed the warehouse with about 3,000 tons of pulp. The second fire occurred two days later and was probably caused by cinders or smouldering embers bursting into flame after the fire was supposed to be out.

The second fire badly damaged the mills, although information as to the real extent of the damage has not reached here. Bulkley, Dunton & Co., of 75 Duane street, are sole representatives in this country for the Iggesund mills. At their offices a PAPER TRADE JOURNAL representative was informed that the facts received by the company regarding the fire had been meager. They stated that as a result of the fire the mills had been compelled to send out heavy cancellations or orders, but that it was not expected that this would have any effect on the market.

American Writing Pays Back Taxes

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., June 23, 1925.—The American Writing Paper Company has paid its back taxes, the decree of the United States Circuit Court allowing of the receiver to issue receiver's certificates which are accepted by banks, allowing of the liquidating of this indebtedness. The total paid in Holyoke was $345,022.57 by two checks; one for $141,830.65 for the 1923 property tax and the other for $203,202 for the personal and property taxes for 1924. The interest on the back taxes for 1923 was for over $18,000 and for the 1924 taxes about $11,000.

The taxes in West Springfield was for $869.20 for the 1923 back taxes and $16,458 for the 1924 taxes. A later check for about $2,000 covered the interest charges.

Pettebone-Cataract Discontinue Making Paper

[FROM OUR REGULAR CORRESPONDENT.]

NIAGARA FALLS, N. Y., June 22, 1925.—The Pettebone-Cataract Paper Company discontinued manufacturing paper in its plant here Saturday, June 20.

It is understood that the machinery has been sold at low prices with a privilege to the buyer of operating in its present position for a period of approximately three years, with a privilege of power sufficient to operate the paper mill at the prevailing prices for electric power. The pulp mill, it is understood, will not be operated, and possibly only one machine in the paper mill will be operated, and that on specialties.

MATHIESON System

Mathieson Aqua Ammonia as a Casein Solvent

MANY manufacturers of high-grade coated papers have learned the advantages of Aqua Ammonia as a solvent for casein.

Aqua Ammonia is a superior solvent for this purpose due to the fact that it is already volatilized by heat. When the paper, impregnated with a solution of casein in ammonia, passes over the drying rolls, the ammonia is driven off. Only the casein—no solvent—remains in the paper.

Mathieson Aqua Ammonia, 26°, is a product of exceptional quality made by our synthetic process from highly purified nitrogen and hydrogen gases. It is shipped in standard 110 gal. drums from our Niagara Falls plant or from warehouse stocks in principal cities.

We solicit inquiries from all Paper Mills using casein.

The MATHIESON ALKALI WORKS Inc.
250 PARK AVE. NEW YORK CITY
PHILADELPHIA CHICAGO PROVIDENCE CHARLOTTE

Deal Direct with the Manufacturer

Caustic Soda - Liquid Chlorine
Bicarbonate of Soda
Anhydrous Ammonia
Soda Ash - Bleaching Powder
Modified Virginia Soda
Aqua Ammonia

Forest Resources and Foreign Trade

By H. E. Shepherd*

The movements of wood in international trade are of interest not only to the economist, the forester and the geographer, but also to the great mass of people engaged in professional and non-professional fields of endeavor who direct the legislative policies of our government. To the latter these movements have a direct bearing on tariff legislation, the acquisition of national and state forest reserves and the astuteness of colonial expansion. One finds it difficult to name a political division of the world absolutely independent of others for an adequate supply of forest products. Russia and the United States are as near to economic independence in this respect as any civilized nation will ever be.

Wood Well Up on List of Necessary Articles

Wood is not the most important commodity of international commerce, but is well up on the list of articles necessary for the sustenance of human life. Using a prewar period for an example we find that during the fiscal year ending June 30, 1913, the exports of wood and its products was exceeded in value by only six other commodities; namely, raw cotton, iron and steel, meat and dairy products, copper and its manufactures, breadstuffs, and mineral oil. Probably in the years to come substitutes will be found for all or nearly all of the important forest products, but that day is too far distant to be considered at the present writing. At this time it might be well to state a few generalizations showing the magnitude of the forest products imported and exported. Commerce experts have estimated with some degree of accuracy that 3,750,000 cubic feet[1] of wood goes into international trade each year and using prewar prices as a standard of value this may be said to be worth $650,000,000. By geographic division Europe and North America are the greatest importers and exporters of forest products. Europe exports some 2,326,000,000 cubic feet of wood each year and imports about 1,965,000,000 cubic feet. North America exports about 1,317,000,000 cubic feet and imports 703,000,000 cubic feet. Thus it is seen that these two geographic divisions export a total of 3,643,000,000 cubic feet or about 97 per cent of the exports for the entire world.

Great Forest Areas of World

It seems necessary to know something of the great forest areas of the world before the commerce in forest products between the several nations can be intelligently considered. Messrs. Zon and Sparhawk, economists for the United States Forest Service, have estimated that there are about 7,500,000,000 acres of forest land in the world or 22 per cent of the land area exclusive of the polar regions. This figure, however, includes many millions of acres not covered with productive forests. Russia (Europe and Asia) heads the list of individual nations with over 1,550,000,000 acres of forest lands. It has been estimated that Brazil has 1,000,000,000 acres of land covered with forests, but because of its tropical nature much of this has little commercial value at present. Furthermore, the characteristics of the country are such that in many places lumbering will never be possible. The continental United States and Alaska have a total of 645,000,000 acres of forest lands and a very large part of this amount are or will be of commercial value. Canada follows with a forest area of 600,000,000 acres. Although in the extreme northern part many of the trees are small, a large part of this timber is available for commerce. It is interesting to know what part of this acreage is under government control and thus perpetuated for future generations. The late Professor Surface, formerly of Yale University, stated in a paper before the Geographical Society of Philadelphia in 1910 that the national forest reserve of the United States exceeded 165,000,000 acres as against about 98,000,000 acres for the year 1905.[2] He further stated that about 100,000,000 acres are under government control in Canada. In the Yearbook of the Department of Agriculture[3] figures are given showing that the total standing timber of our national forests is equal to 557,571,143 M board feet of saw timber and 93,731,134 cords of cordwood. This amount is theoretically preserved for the future, but if the past is at all indicative of the years to come much of this timber will be destroyed by fire. The average loss from forest fires since the year 1870 has been about $50,000,000 and fifty lives annually. This loss, however, can be almost entirely prevented by the appropriation of sufficient funds for forest fire protection. The United States Forest Service is willing, but money must be had to hire men and to purchase the necessary equipment before complete fire protection can be realized. The use of the airplane for forest fire control is one of the latest experiments and has already proved to be a great success. The St. Maurice Valley Protective Association has been one of the pioneers in the use of the airplane for forest fire protection work and their lead has already been followed by the United States Forest Service in cooperation with the Army Air Service.

Russia's Enormous Resources

Finland and Russia are the only countries of Europe that can be depended upon for a supply of wood after the minor forest producing countries have exhausted their supply. Russia has enormous timber resources. The forest wealth of northern Russia alone comprise some 243,000,000 acres of untouched forest lands. Russia possesses vast hardwood forests, mainly oak, poplar, elm, and ash,[4] but as yet they have not been exploited to their full extent. It is very probable that the natural resources of Russia will prove to be the key to the economic situation in Europe. Russia is a country of vast natural resources and Germany is an industrial nation. If these two countries will develop their logical trade with each other the economic position of each will be very strong. This would raise the German rate of exchange and enable her to amortize the many foreign obligations that she now has outstanding. This plan for the securing of the national stability of Germany and Russia has been promulgated by Philip Gibbs, who has a very clear conception of European political and economic conditions. The exportation of a large amount of timber from Russia would be injurious to the American forest product exporters, but compensation would come to the exporters of manufactured commodities by the greatly increased purchasing power of Russia.

Competition from Canada

At the present time the United States faces competition from Canada. Although Canada has not the great variety of species found in the United States she has vast areas of virgin forests as yet uncut. The principal Canadian species are hemlock and spruce, both growing in the east and west, and Douglas fir, larch and cedar in the more western provinces. The supply of hardwood is not as great as the supply of conifers. Oak and hickory are seldom found in any considerable quantity in Canada. Although the United States exports large quantities of timber and lumber to Canada, she imports from them several times the amount exported. Thus during the year 1920 the United States exported nearly $15,000,000 worth of forest products to Canada, but Canada in turn exported something like $71,000,000 worth to the United States.

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*Vice-president, International Coal Corporation; article a part of a study pursued in foreign trade at Yale Graduate School in which honors were received.

[1]Zon and Sparhawk, Forest Resources of the World, Vol. 1, p. 57.

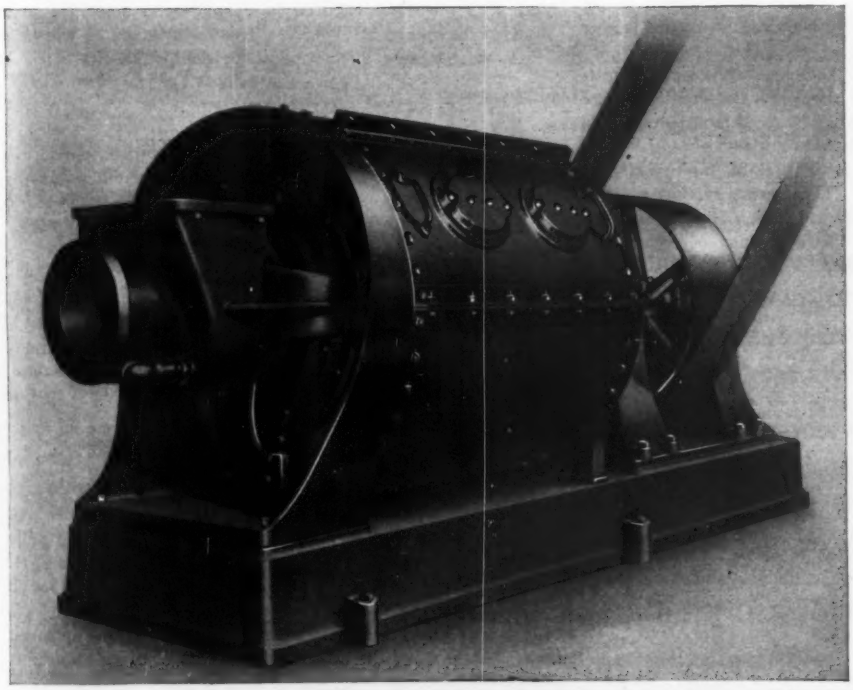
[2]Surface, G. T., The Commercial Woods of the United States and Their Uses, Geo. Soc. of Phil. Bulletin, 1910.

[3]1922.

[4]Statistical division of the National Bank of Commerce in New York, Some Great Commodities, p. 92.

Less than one horse power per ton of stock

Including circulation to wet machines or deckers



Fifty percent power savings often result from changing the layout of the screen room to use Bird Pulp Screens.

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The Bird Pulp Screen

The principal exporting country of Asia is Japan with an annual exportation of 36,850,000 cubic feet, but in a very few years due to timber shortage Japan will be out of the export field. Japan is already importing a large amount of timber from the United States, as the figures below will show.

Great Britain will never be a forest product competitor, for already she finds it necessary to import about 95 per cent of her entire consumption of wood. A part of this importation is supplied by the United States.

United States Second Greatest Exporter

Of North America the United States exports the greatest amount of timber and other forest products and aside from Sweden exports more than any country in the world. However, the United States imports very nearly as much wood as she exports. Before taking up the exports of later years it may be well to give some idea of the prewar exports of this country. Such information can probably best be given by quoting a paragraph verbatim from a circular[5] of the Department of Agriculture. It says:

"Before the war we were exporting, roughly, three and one-half billion board feet of lumber and sawlogs, exclusive of ties, staves, and other products. This export was made up of southern yellow pine, Douglas, fir, white oak, redwood, white pine, yellow poplar, cypress, walnut, hickory, ash basswood and a few others of our more valuable softwoods and hardwoods. Of the total export the softwoods formed about 79 per cent and the hardwoods 21 per cent. Nearly half of the entire exports of lumber was southern yellow pine. The export trade takes about 10 per cent of our entire lumber cut."

As has already been stated the United States is the second greatest exporter of forest products. To show the magnitude of these exports and the places from and to which they go figures have been compiled for several of the more important forest products. The year selected was 1922, inasmuch as at the time of this writing figures for 1923 were not yet available. The exports of timber, hewn and sawed, for the former year are shown below. It is to be noted that only the larger exportations, in this case those over two hundred thousand cubic feet, have been listed.

Exports of Timber, Hewn and Sawed[6]

France	366,188	Cubic feet
Germany	356,030	
Italy	1,417,873	
Netherlands	1,632,800	
Spain	356,155	
England	5,471,710	
Scotland	1,031,500	
Ireland	650,700	
Quebec and Ontario	439,400	
Mexico	450,000	
Cuba	330,900	
British India	282,250	
China	1,036,041	
Japan	12,428,450	
Australia	791,180	
British South Africa	583,040	

From this table it is readily seen that Japan is the greatest importer of our hewn and sawed timber with England second and the Netherlands third. This exportation was from the following Customs Districts:

Exports by Customs Districts for Timber, Hewn and Sawed

Florida	1,276,532*	Cubic feet
Georgia	377,436	
Mobile	3,904,250*	
New Orleans	3,674,504*	
Sabine	3,519,142*	
Oregon	7,560,680	
Washington	8,007,376	
Michigan	233,440	

*Mostly southern yellow pine.

Only Customs Districts exporting more than two hundred thousand cubic feet have been listed in this table. The great amount of southern yellow pine exported from the more southern districts is particularly worthy of attention.

[5]Circular 140.
[6]These and subsequent tabulated figures from data by the United States Bureau of Foreign and Domestic Commerce.

Large quantities of logs and round timbers are exported from the United States each year and all exportations of over fifty thousand cubic feet are shown in the following table. Here again Japan is the greatest importer:

Exports of Logs and Round Timber to

Belgium	197,579	Cubic feet
France	257,100	
Germany	390,900	
Italy	60,000	
England	242,099	
Scotland	138,000	
Quebec & Ontario	90,700	
British Columbia & Yukon	1,426,000	
Mexico	79,628	
Japan	5,116,392	
Australia	142,842	

With Japan receiving the greatest quantity it is only natural that Customs Districts on the Pacific coast should ship the major amounts of this commodity. This is born out in the table below, which shows the Customs Districts of Oregon and Washington far in the lead:

Exports by Customs Districts for Logs and Round Timber

Philadelphia	73,000	Cubic feet
Maryland	75,000	
Virginia	130,722	
Georgia	239,000	
Florida	100,000	
Mobile	344,000	
New Orleans	324,504	
San Francisco	885,500	
Oregon	1,923,026	
Washington	3,947,914	
Montana and Idaho	51,500	
Duluth and Superior	77,544	

Another important forest product export is pulpwood. In the year 1922 our total exportation of pulpwood amounted to about 19,685 cords valued at $190,528. This exportation, as will be noted below, went to only three political divisions of the world:

Exports of Pulp Wood

Netherlands	215	Cords
Quebec and Ontario	19,455	
New Zealand	14	

It is difficult to believe that the exportations of pulpwood to Quebec and Ontario are as great as the figures show, but investigation brings to light the reason for this large movement in this commodity. In the Great Lakes region several of the pulp mills are very close to the International Boundary and it happened in this instance that the mills were on the northern side of the line, whereas their supply of timber was on the southern side. As a result this pulpwood was transported for a few miles into Canada to where the mills are located. However, although an actual exportation, this pulpwood should not be considered in foreign trade, as the term is commonly used. The table following showing exports by Customs Districts will bear out these statements:

Exports by Customs Districts for Pulp Wood

New York	230	Cords
Duluth and Superior	12,256	
Michigan	6,198	

The pulpwood imports of this country are much greater than the exports. During the year under consideration, 1922, the pulpwood importation amounted to about 1,044,816 cords, valued at $11,002,636. This was divided, in order of volume, into peeled, rough and rossed wood. Finland, however, shipped only rough wood. These figures will give some idea as to the larger of these importations. They include all of the three foregoing classes of pulpwood:

Imports of Pulp Wood

Quebec and Ontario	844,417	Cords
Maritime Provinces	181,420	
British Columbia and Yukon	8,361	
Prairie Provinces	6,466	
Newfoundland and Labrador	3,347	
Finland	1,601	

During the same year the United States exported a total of 30,129 M laths which at that time were valued at $193,676. All shipments of over 150 M went to seven political divisions of the world.

Exports of Laths

Maritime Provinces	198	M laths
Quebec and Ontario	313	
British Columbia and Yukon	456	
Mexico	1,006	
Australia	27,393	
New Zealand	300	
Portuguese Africa	203	

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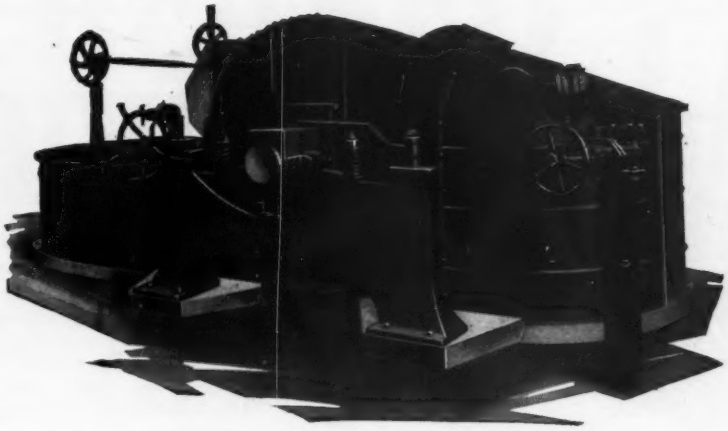


in the beaters"

The Dilts Approved NEW TYPE Beating Engine

SPEED This NEW TYPE beater is a high speed beater. In one mill it has shown 100% faster circulation than their standard Hollander beaters. The roll is not speeded up to accomplish this result, nor is the stock lifted over a high backfall.

EFFICIENCY This NEW TYPE is a very efficient beating engine. It circulates much heavier stock than is possible in a standard Hollander type of beater, and it mixes and beats the stock more thoroughly and more uniformly. It dumps very quickly, and no scrapers or paddles are ever necessary.

ECONOMY This NEW TYPE beater takes no more power than a standard Hollander beater, and accomplishes 25% to 50% more work. In our judgment it is by far the most efficient and economical beating engine in use today.

Write us for all information

6538

Dilts

MACHINE WORKS, Inc. FULTON, N.Y.

EXPORT OFFICE ~15 PARK ROW~ NEW YORK CITY

The larger exportations of laths were from the Customs Districts shown in the following table:

EXPORTS BY CUSTOMS DISTRICTS FOR LATHS

Massachusetts	204 M laths
San Diego	323
Arizona	242
Oregon	12,576
Washington	15,719
Michigan	268

As was the case with pulpwood, the importations of laths was greatly in excess of the exportations. In the year 1922 a total of 1,398,725 M laths were imported into the United States valued at $7,862,286.

IMPORTS OF LATHS

England	5,187 M laths
Maritime Provinces	752,154
Quebec and Ontario	580,218
Prairie Provinces	19,354
British Columbia and Yukon	35,672
Newfoundland and Labrador	6,140

Although the Commerce Reports show that over 5,000,000 laths were imported from England, investigation shows that these were re-exports, the timber having been shipped to England for milling.

Although the United States is a large exporter of telegraph and telephone poles she imports more than three times the number exported. Of the five countries that are engaged in two way traffic in this commodity, the Dominican Republic alone received more than they shipped to us. For the year under consideration the United States exported 24,229 telegraph and telephone poles valued at $177,433. The more important shipments were as follows:

EXPORTS OF POLES

Japan	10,538 Poles
Mexico	10,314
Cuba	1,100
Quebec and Ontario	651
Maritime Provinces	296
Prairie Provinces	283
Dominican Republic	250
Straits Settlements	248

It should be noted that the larger part of this exportation went to tropical countries where the native species do not make satisfactory poles because of their short length and poor form. In this table showing the major exportations by Customs Districts it is clearly seen that the southern and Pacific Coast Districts ship the greatest number of poles:

EXPORTS BY CUSTOM DISTRICTS FOR POLES

New York	1,487 Poles
Florida	900
San Antonio	6,658
San Diego	1,194
San Francisco	3,566
Oregon	5,940
Washington	2,082

As has been said before, the importation of poles greatly exceeds the exportation. The following are complete figures for the imports during the year 1922; 79,693 poles were imported valued at $327,717.

IMPORTS OF POLES

British Columbia and Yukon	65,731 Poles
Quebec and Ontario	6,737
Maritime Provinces	5,942
Prairie Provinces	1,278
Dominican Republic	5

The exports of shingles from the United States are relatively small as compared with the imports. Thus in a single year 30,082 M shingles were exported, or about one seventy-seventh of the number imported. This exportation was valued at $147,644.

EXPORTS OF SHINGLES

Quebec and Ontario	2,460 M shingles
British Columbia and Yukon	4,976
Mexico	12,925
Jamaica	2,549
Other British West Indies	3,904
Australia	1,600

Although shingles were exported to twenty-two political divisions of the world, only the larger exportations have been listed above. All of the more important shipments were from Customs Districts in the south and on the Pacific Coast with the exception of those from Michigan.

EXPORTS BY CUSTOMS DISTRICTS FOR SHINGLES

Florida	4,349 M shingles
New Orleans	2,668
San Antonio	8,525
San Diego	1,225
San Francisco	2,074
Washington	5,609
Michigan	1,614

The total number of shingles imported was 2,326,332 M shingles valued at $9,277,855. These all came from Canada with the exception of some seven million from South America.

IMPORTS OF SHINGLES

Maritime Provinces	168,401 M shingles
Quebec and Ontario	382,839
Prairie Provinces	13,322
British Columbia and Yukon	1,753,930
Colombia, S. A.	7,000

From the foregoing figures some idea of the forest product imports and exports of the United States may be had. It is particularly worthy of note that the total imports very nearly equal the total exports. With certain of the products that have been mentioned, the imports greatly exceed the exports. This is true with pulpwood, laths, telegraph and telephone poles, and shingles. This can only indicate that our forest resources, great as they appear, are not equal to the demand for domestic consumption. It further indicates that if the present system of cutting without reforestation is kept up the United States will have to depend more and more on other countries for her forest products in the future. With the United States standing second among the nations in productive forest area we should not only be able to supply our domestic requirements, but should also be able to export to the less fortunate countries of the world. However, with our total annual growth only about one-third of what is being cut each year this will be impossible. We are inclined to place the blame for our depleted forests on the pioneers of the country rather than in our inadequate forest policies where it belongs. Professor Emory R. Johnson has completely exculpated the early settlers in his "History of Domestic and Foreign Commerce of the United States"[8] with the following words:

"It is a satisfaction that the colonists were able to derive as much wealth as they did from the vast forest resources. Unfortunately, the settlement of the country and the development of agriculture necessitated the destruction of the forest. The land had to be cleared; the tree was the foe of the farmer. Thus it was that for two and a half centuries in America the larger part of the forests had to be destroyed at great expense instead of being profitably utilized. The situation has now changed and the American people are spending large sums to maintain and enlarge the remains of their once seemingly limitless forests."

Although the United States does not seem to be aware of her rapidly diminishing forest resources, other countries clearly foresee this decrement and its effect on foreign trade. In the circular of the Department of Agriculture which has been quoted before, two splendid examples of British insight have been copied. The first of these is a paragraph in a government report of the Colony of Good Hope in regard to our available supply of hickory. It says:

"Within the past few years the reckless improvidence and desire for quick returns practiced by Yankee speculators have placed hickory spokes and even ready-made American trolleys and buggies largely on the South African market and these have found purchasers. Well-wishers of the Colony may, however, view this with equanimity, since it gives the more valuable hardwood forests a period of rest and recovering from the recognized mismanagement of former years, pending the inevitable ultimate failure of the American supply." Another is a sentence in a communication sent to the president of the Board of Trade by the board of directors of the Manchester Chamber of Commerce, which says:

"Of the principal prewar sources of supply, Scandinavia will probably be unable to export considerable quantities and the United States of America are likely to use not only the whole of the timber cut in the States, but also a large portion of the Canadian surplus." With such statements quoted in our government reports it is certainly not for lack of knowledge that more constructive and conservative policies are not adopted by the American people with respect to their forest resources.

[8]Vol. 1, P. 71 & 72.
[9]Circular 140.

INCREASED PRODUCTION

At Greatly Lower Cost

Pulp and Paper Production Statistics

The February production of paper in the United States as reported by identical mills to the American Paper and Pulp Association and cooperating organizations, showed a decrease of 8 per cent compared with January's production following a 7 per cent increase in January over December, according to the Association's Monthly Statistical Summary of Pulp and Paper Industry. All grades showed a decrease in production as compared with January.

The Summary is prepared by the American Paper and Pulp Association as the central organization of the paper industry, in cooperation with the Binders Board Manufacturers Association, Cover Paper Association, Newsprint Service Bureau, Wrapping Paper Manufacturers Association, Converting Paper Mills Association, Wrapping Paper Manufacturers Service Bureau and Writing Paper Manufacturers Association.

The figures for February for same mills as reported in January are:

Grade	Number of Mills	Production Net Tons	Shipments Net Tons	Stocks on Hand End of Month—Net Tons
News Print	65	113,805	114,027	25,883
Book	53	85,460	87,097	39,824
Paperboard	108	107,754	107,868	28,110
Wrapping	84	50,082	51,685	60,719
Bag	26	9,751	10,164	6,186
Fine	82	27,878	29,188	40,496
Tissue	45	11,648	11,657	10,923
Hanging	8	3,903	4,030	1,763
Felts	20	18,089	18,157	3,745
Other grades	63	19,910	20,430	13,627
Total all grades		448,080	454,303	231,276

THE production records of the paper industry, as published from month to month furnish a convenient index, when comparisons are made, as to progress. But these figures do not tell the cost of production, the one vital factor that makes for either profit or loss.

Factors that enter into the cost of production, as studied by users of the NEW BELOIT FOURDRINIER, are the very essence of frugality. The three main features: Adjustable, Removable and Shakeable—are of BELOIT invention, and their operation has been so successful that a new era in paper-making has been created.

In the matter of wire changes, the Removable feature has been instrumental in savings of 595 man hours yearly, besides a saving of 51 production hours and an increase in production of tons more of paper.

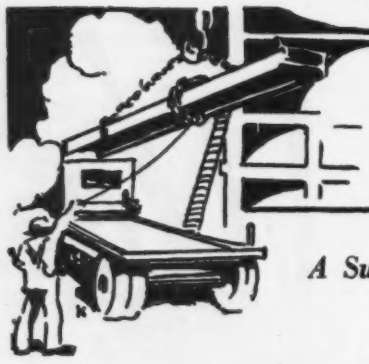
The new oil-tight, waterproof BELOIT bearing reduces power consumption and largely eliminates water cooling on press and calender boxes. Injurious heat and power waste is thus eliminated. The new BELOIT Shake insures a better formed sheet at higher speed.

For further records of savings, write for Bulletin No. 9.

The NEW BELOIT FOURDRINIER

Beloit Iron Works — **Beloit, Wis., U. S. A.**

Established — Since 1858



CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

St. Paul, Minn.—The Waldorf Paper Products Company, Myrtle and Hampden avenues, has plans for the construction of a new power house at its plant to be one-story, 60 x 100 feet, located at Hampden and Pillsbury avenues, estimated to cost about $150,000, with equipment. A general contract for the building has been awarded to the Paul Steenberg Construction Company, Builders' Exchange. Work will soon be placed under way.

Fitchburg, Mass.—Crocker, Burbank and Company, Inc., 545 Westminster street, has broken ground for a one-story building at its plant, for which a general contract has been awarded to Wiley & Foss, Central street. It will be used for mechanical repair and motor truck garage service. Herbert A. Foster, Olive street, is architect.

Muskegon, Mich.—Frank S. Bicking, Philadelphia, Pa., and associates have acquired the property of the Mullen Brothers Paper Company, heretofore owned by the Midland Lakes Paper Company, bankrupt, and will take over the plant at once. A consideration of $63,000, was given. The new owners are reported to be planning to occupy the plant in the future, for the same line of manufacture.

Newark, N. J.—Fire, June 12, destroyed a portion of the building at Kent and Brenner streets, occupied by the National Paper Box Company and other interests, with combined loss of about $100,000, divided among three companies. The National Company is said to be arranging for the re-establishment of its plant and the replacement of equipment at an early date.

St. Paul, Minn.—Brown and Bigelow, Inc., University Avenue, near Syndicate avenue, manufacturer of paper specialties, is perfecting plans for the proposed new addition to its plant and will issue a call for bids on general contract at an early date. It will be two-story, 80 x 300 feet, reported to cost in excess of $75,000, including equipment. Colburn and Forsell, 210 South Ninth street, are architects. R. P. Galloway is secretary and treasurer.

Washburn, Me.—Fire, June 17, destroyed the wood pulp grinding mill and property of the American Realty Company, with loss reported at close to $300,000. The mill is said to have been of old type and will be replaced with a modern structure, for which plans are expected to mature in the near future.

Sheboygan, Wis.—The Excelsior Wrapper Company is said to be planning for the immediate rebuilding of the portion of its plant, destroyed by fire on June 13,. An official estimate of loss has not been announced.

Truckee, Cal.—The Crown Willamette Paper Company, San Francisco, Cal., is planning for extensive operations at its wood wood pulp properties in the vicinity of Adler Creek, where large timber lands are held by the organization. To facilitate operations, the company has just completed the construction of a railroad line from Truckee, a distance of about 6 miles.

St. Louis, Mo.—The Federal Paper Stock Company, McKissock and John avenues, has plans under way for the erection of a new building to cost about $85,000. It will be used primarily for storage and distributing service. It is expected to begin work at an early date.

New Companies

Brooklyn, N. Y.—The Arch-Bilt Corrugated Products Corporation has been incorporated with a capital of $50,000, to manufacture corrugated paper products. The incorporators are L. Shomer, H. A. Harkaway and M. Fisher. The company is represented by S. L. Wallerstein, 220 Broadway, New York.

Detroit, Mich.—The Wilson Paper Products Company has been incorporated with a capital of $100,000, to manufacture paper goods. The incorporators are Carl H. Wilson, Holly, Mich.; and William Martin, 15326 Normandy avenue, Detroit.

St. Louis, Mo.—The Great Lakes Company has been incorporated with a capital of $10,000, to manufacture and deal in paper products. The incorporators are D. D. Bradish and A. L. Moore, both of St. Louis.

Carthage, N. Y.—The Carthage Paper Board Company has been incorporated with a capital of 500 shares of stock, no par value, to manufacture paper board and kindred paper products. The incorporators are A. Muir and F. L. Smith. The company is represented by J. V. Dempsey, Carthage.

Perth Amboy, N. J.—The Standard Paper Company has been incorporated with a capital of $100,000, to manufacture and deal in paper specialties. The incorporators are Percy J. Quackenbush, Abraham Kelson and Hyman Holtz. The company is represented by Harry Spitzer, 175 Smith street, Perth Amboy.

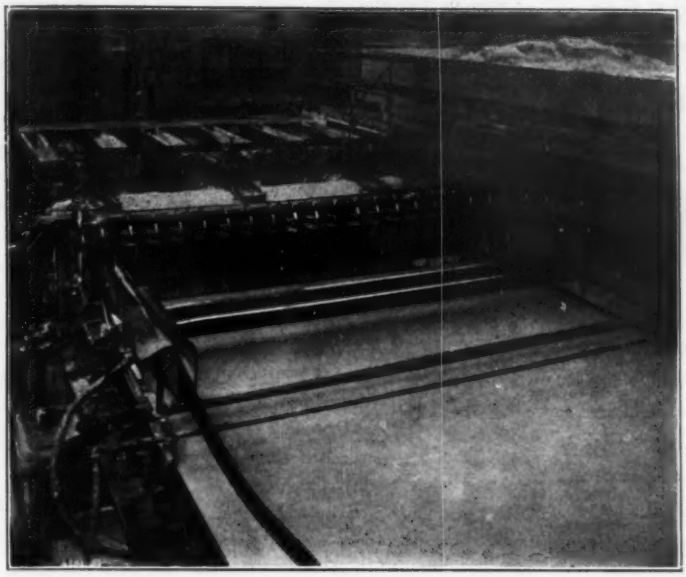
Brooklyn, N. Y.—The Royce Paper Company has been incorporated with a capital of $20,000, to deal in paper products. The incorporators are A. Cohen, V. W. Simon and E. Forst. The company is represented by Kessler & Forst, 32 Court street, Brooklyn.

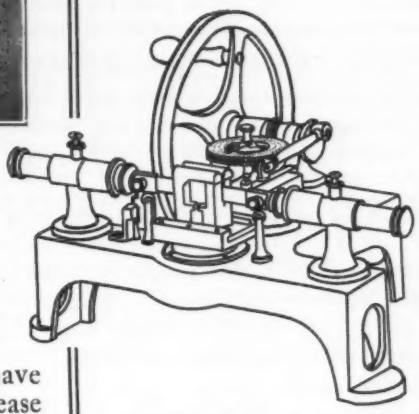
New York, N. Y.—The Reliance Ruling Company has been incorporated with a capital of $12,000, to manufacture and deal in binding papers and kindred paper specialties. The incorporators are C. Siegel, H. Brodsky and S. Shafer. The company is represented by G. Baldwin, 27 Rivington street, New York.

W. H. Tait Resigns From American Writing

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., June 23, 1925.—William H. Tait, superintendent of the Linden Division of the American Writing Paper Company has resigned, effective July 15, to accept a position August 1 with the Howard Smith Paper Mills, Ltd., at Beauharnois, P. Q. Mr. Tait will sever a connection held for 22 years with the company for the last eight years being superintendent of the Linden mill where many of the high grade contracts for the government have been carried out. A large quantity of the blue print paper has been made also at the Linden mill. The Linden mill with several others is under the general supervision of Leon M. Yoerg, production manager of the finer grade mills of the Company.





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Manufacturers of many different kinds of paper have found within the past few months that they can increase the wearing qualities of their papers very easily and quickly. All that is necessary is the installation of a Voith High Pressure Stock Inlet and the reasons for these improvements are easily explained.

With the Voith Inlet a simple adjustment controls the stock stream, making it possible to produce a sheet of uniform substance across its full width. The entire surface of the wire is used for formation purposes and the felting and draining action is immediate thus insuring perfect interlacing of the fibres. Lumps and foam spots are eliminated and the final result is a better and more durable paper made at a lower cost.

The folding test is one of highest importance and it reveals the excellent qualities of Inlet made papers. Resistance to wear and folding is developed by thorough felting and interlacing of the fibres and if you want to make a better and more durable paper install the Voith Inlet. We have ready for you a booklet explaining this new paper machine device in detail. Write for your copy today.

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PAPER TRADE JOURNAL
ESTABLISHED 1872
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PAPER
The Magazine of the Paper Industry
HENRY J. BERGER, Editor

Member A. B. C. Audit Bureau of Circulations

Vol. LXXX New York, June 25, 1925 No. 26

PRICES TENDING TO STABILIZATION

A growing confidence and a tendency toward price stabilization the First National Bank of Boston finds to be the outstanding features of the business situation after a survey which it has just concluded.

An early stabilization of business is also predicted by Dr. Lewis H. Haney, director of the bureau of business research of New York University, in his monthly analysis and forecast.

"Business this summer will make an irregular showing, because both favorable and unfavorable factors are in effect," Dr. Haney said. "Business will gradually approach a stable level which will be but little below normal.

"On the whole, we have been undergoing a process of downward readjustment since February. This moderate recession will continue until about August. The end of the process, however, is forecast by a slight upturn in my P-V line, which has correctly indicated the turns in business and industry during the last five or six years.

"At present there is so much uncertainty as to the trend of prices, stocks of commodities at mills and factories are so large in many industries and unfilled orders are so small that I do not expect much improvement before fall. The momentum of the decline in the iron and steel industry is still on and a state of depression exists in coal, textiles and railroad equipment. The radio industry is also quite demoralized."

The statement of the First National Bank of Boston continuing says that "the business movement has been kept well in hand since the first of the year, with more gradual retrenchments than during the corresponding period a year ago. Inventories in general are moderate, price fluctuations narrow, future commitments conservative, and the balance between production and consumption well maintained. Readjustment between industries is on a better basis, with abnormal price discrepancies undergoing gradual correction. Automobile, tire, leather, paper, lumber, and more recently cotton manufacturers have attempted to adapt their output to general market requirements, and hence to avoid chronic overproduction with consequent demoralization of prices. Co-operation within industries will doubtless become more general following the recent decision of the Supreme Court permitting the compilation and exchange of pertinent data by trade associations. Reductions in costs and the elimination of waste all along the line are aiding the situation.

"It is becoming increasingly clear that the chief problem is not the manufacture of goods, but their distribution. Hand-to-mouth buying is causing manufacturers to carry the burden of inventory and to assume the risk of changing styles and price fluctuations. In some industries manufacturers have sought relief through direct sales to the consumer.

"The past month has witnessed but a slight decline from the peak of general production, compared with a 10 per cent drop for the same period a year ago. The daily average of steel production in May dropped 17 per cent from the March peak, as against a decline of 39 per cent for the corresponding period a year ago. Orders of steel have become more numerous and makers of farm inplements report the best sales in five years. Motor vehicle production, while slightly less than April, was 30 per cent above May 1924. Building activity showed a seasonal decline for the past month, but operations were considerably greater than a year ago, and for the first five months of this year were the highest on record. The woolen industry continues on a restricted basis, but the recent recovery in the price of raw materials has brought an increased number of orders. Cotton mills both North and South report further curtailment, but record acreage and good crop condition are factors making for cheaper raw material, an encouraging feature. The silk and tire industries continue to operate at a record rate for this season of the year.

"Some further curtailment in production will presumably take place during the summer months, but with well sustained consumption prices should tend to stabilize. No significant development in the business situation is expected for the months immediately ahead, but most industries anticipate a moderate upturn during the fall.

"Paper production has shown a slight seasonal decline, although the industry is in a much better position than a year ago. Orders are frequent, albeit in small lot quantities, and prices have remained firm except in box boards. There is a fair demand for book, wrapping, kraft, and specialties, while the heavy demand continues for news print. Imports of news print for the ten months ending April aggregated 1,033,640 tons, over 88 per cent of which was furnished by Canada."

PAPER MACHINE CHANGES

There are many changes to be seen in the Fourdrinier machine which would have been startling to the paper maker of fifteen or even ten years ago. Most of them have been either the discarding of auxiliary equipment or a reversal of the older practice, although there have been a few additions such as those by which the felts and wires are continuously cleaned while in operation.

THE DANDY ROLL. One of the first changes was probably to discard the dandy roll on news machines where they are now rarely seen.

REVERSAL OF THIRD PRESS. One of the next was to run the paper

straight through the presses instead of reversing it at the last press before it passed to the driers.

SHAKE REMOVED. After a large number of machines had been equipped so that the deckle frame was held rigid while the wire part was being shaken, the next step was to discard the shake. While this is the rule on practically all news machines, the same is being done to some extent on those making other grades. It is more than likely that in another decade the shake will be a curiosity.

PITCH OF WIRE LOWERED. After seventeen years of building the wire part so that it could be elevated in some relation to the speed, and when the machines designed for news at least were tending towards a fixed pitch to the wire, it was found that a flat wire could be operated equally well and with some advantages.

REMOVAL OF THE TRAYS. The discarding of the white water trays under the wire was probably in the main to cut down the time for changing wires. In the modern design of a machine where the wet part need not be dismantled in changing the wire, it is very possible that the trays may be replaced so that there may be a segregation of the water which carries a considerable amount of paper stock, from the rest of the backwater.

DECKLE STRAPS REMOVED. The latest change is to run the machine without deckle straps. Most of those which have been mentioned are to be credited to mills making news print but in this case it is in a book paper mill that the radical departure was made. That it is successful is without question and it is expected that very soon deckle straps will be found only on machines making special grades or in mills where a change from established practice is always strenuously opposed.

Peshtigo Paper Co. Receivership Friendly

MILWAUKEE, Wis., June 22, 1925.—The feeling prevails in financial circles here that the $1,200,000 of first mortgage bonds of the Peshtigo Paper Company, which went into the hands of a receiver will not be disturbed by the bankruptcy proceedings. These bonds, most of which are held in Milwaukee, are amply protected by assets figured in the neighborhood of $3,000,000.

John D. Bird, Milwaukee, was named receiver for the company at Oconto as the result of a friendly suit instituted by the American National bank of which he is president and the First Wisconsin National bank. According to Walter Kasten, president of the latter institution, the First Wisconsin holds notes of the Peshtigo Paper Company to the extent of $120,000. Mr. Bird says his bank holds $100,000 of the company's paper.

The concern's troubles are ascribed in a large amount of money tied up in inventories which it was unable to move.

The receivership was asked for as a means of keeping the firm operating and protecting the various interests involved. There are said to be sufficient assets to meet all notes.

Stock of the company is distributed quite extensively in northern Wisconsin. There are some 900 shareholders.

According to Mr. Kasten an improved demand has recently set in for the company's products and prospects are that the receivership will be of short duration.

Machinery of Mullen Bros. Plant Sold

KALAMAZOO, Mich., June 22, 1925.—Assets of the plant of the Mullen Brothers Paper Company, St. Joseph, taken over about two years ago by the Mid-Lakes Paper Company, now bankrupt, have been sold. The purchase was made at receiver's sale, Frank S. Bicking, Philadelphia, paying $63,000 for the property.

Canadian Paper Exports Show Big Gain

According to a report from the Canadian Pulp and Paper Association the value of the exports of pulp and paper in May showed an appreciable increase over the previous month, the total being $12,451,667 compared with a total of $9,723,830 in April, an increase for May of $2,727,837.

Total value of paper exported in May was $8,883,503 and pulp exports were valued at $3,568,164, the values for the previous month being $7,153,560 and $2,570,270 respectively.

Compared with the month of May, 1924, there was an increase in the total value of pulp and paper exports of $331,782, gains being shown both in pulp and paper.

Details for May, 1925, and 1924 are given below:

	May, 1925		May, 1924	
Pulp	Tons	Value	Tons	Value
Mechanical	24,701	$663,279	13,872	$424,884
Sulphate	11,537	717,493	13,494	804,156
Sulphite, bleached	14,917	1,135,693	13,778	1,028,659
Sulphite, unbleached	20,620	1,051,699	21,351	1,108,198
	71,775	$3,568,164	62,495	$3,365,897
Paper				
News print	115,766	$8,205,266	107,784	$8,095,275
Wrapping	2,564	327,458	1,733	239,109
Book (cwts.)	1,098	12,929	1,584	15,929
Writing (cwts.)	476	4,052	997	10,418
All other	.....	339,798	.....	403,258
	.....	$8,883,503	.....	$8,763,988

For the first five months of the current year exports of pulp and paper were valued at $60,758,651 compared with a total for $58,041,-249 in the corresponding five months of 1924, an increase for this year of $2,717,402, of which $1,289,335 was due to increased paper exports and $1,428,067 to increased exports of pulp.

Figures for the various grades of pulp and paper exported during the first five months of 1925 and 1924 are as follows:

	Five Mos., 1925		Five Mos., 1924	
Pulp	Tons	Value	Tons	Value
Mechanical	107,792	$3,101,524	76,253	$2,601,362
Sulphate	59,510	3,667,678	63,899	3,772,234
Sulphite, bleached	76,559	5,648,545	70,962	5,334,965
Sulphite, unbleached	98,979	5,234,292	85,809	4,525,411
	342,840	$17,662,039	296,923	$16,233,972
Paper				
News print	562,570	$39,882,114	509,568	$38,384,299
Wrapping	8,992	1,236,271	8,384	1,246,090
Book (cwts.)	13,056	120,857	8,317	68,028
Writing (cwts.)	4,716	41,937	6,300	66,951
All other	.....	1,815,433	.....	2,041,909
	.....	$43,096,612	.....	$41,807,277

Pulpwood exports amounted to 95,065 cords in May valued at $931,883 compared with 80,129 cords valued at $844,256 in May 1924. Exports of pulpwood during the first five months of this year were 634,926 cords valued at $5,972,198, an increase over the corresponding months of last year when the total was 562,917 cords valued at $5,399,314.

Hygrade Paper Products Co. to Expand

The Hygrade Corrugated Paper Products Company, of New York City, has recently awarded The Austin Company, engineers and builders of Cleveland, a contract covering the design, construction and equipping of an additional unit to its plant in Long Island, to contain approximately 150,000 square feet of floor space.

The new building will be a three-story reinforced concrete structure, approximately 200 feet by 235 feet. Included in the contract is the installation of lighting, plumbing and sprinkler systems, also a plant for heating the building, all to be completed by November 15, guaranteed with a penalty and bonus clause. Construction work and purchase of all materials will be handled through the Philadelphia office of the builder.

The Hygrade Corrugated Paper Products Company has been identified with the manufacture of paper boxes for the past decade. The officers of the company are Harry Kovner, president; Charles Fine, first vice president; Jacob Podell, treasurer, and Samuel Koff, secretary.

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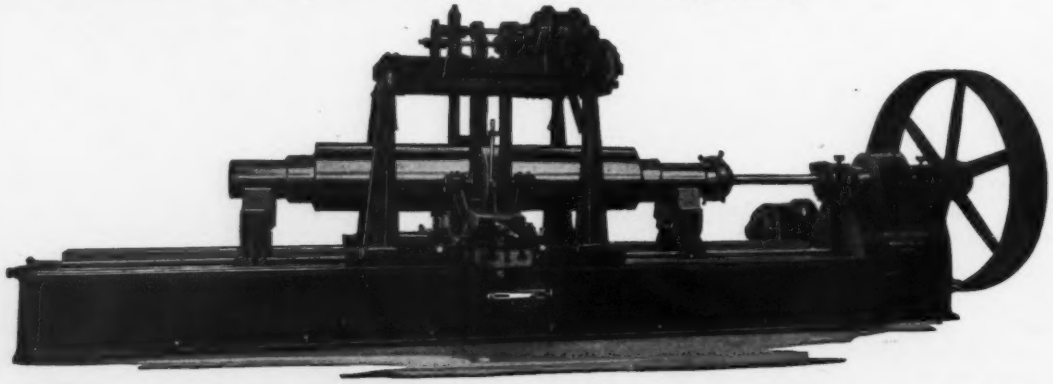

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Section of the

Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G. MacNAUGHTON, Secretary

The Fermentation of Sulphite Waste Liquors*

By Erik Haegglund

The technology of alcohol formation by the fermentation of sulphite waste liquors is well understood, but there are certain problems, which have arisen in the manufacturing process, requiring some attention. For example it has been known for some time that sulphite spirit contains appreciable quantities of acetaldehyde. This has been determined to be due to the action of the sulphite on the alcoholic fermentation. Furthermore, there are other compounds present in which the sulphurous acid radical is found, which are similarly able to induce the formation of acetaldehyde. There seems to be present in the sulphite liquors quite a variety of sulphite addition products of aldehydes, such as furfurol, vanillin and various kinds of sugar. All of these appear to have some effect.

As far as calcium sulphite is concerned, its solubility is far too slight to account for the formation of the quantity found. Then again experiments have shown that the sulphurous acid, which is combined with lignin, that is the acid known as "fast bound" with the lignin, is not in any way responsible. Besides the fast bound sulphurous acid, there is another lignin compound in which the acid is held in a loosely combined state. This acid can be driven off by boiling the liquor with mineral acids. The fast bound sulphurous acid cannot be removed in this manner.

Derivation of Sulphurous Acid

Hence the sulphur dioxide is derived either from the sulphurous acid held in loose combination with the lignin in waste liquor or the aldehyde-sulphite compounds of various sorts. Experiments have been conducted which have revealed that as the sulphite content of the liquor increased, the percentage of acetaldehyde increased likewise. On the other hand the incras is not at all proportional to the amount of sulphite present in the liquor, for it was found that only one-tenth of the expected quantity of acetaldehyde is found.

Analysis of the Liquor for Sulphur Dioxide

It was thought that the difference between theory and actual experimental results was due to the way the liquor was analyzed for its sulphur dioxide content. The original analytical method involved the distillation of the sulphur dioxide from the liquor after it had been acidified with phosphoric acid. Another method was used wherein the liquor was treated with alkali and the sulphur dioxide, set free in this manner, was titrated with iodine after acidification. The results by the two methods did not agree. However a method was established in which the sulphite waste liquor was treated with chalk or slaked lime in the hot condition. It was also found that if the liquor was treated with hydrochloric acid before neutralization, no acetaldehyde was found in the alcohol after fermentation had taken place.

By using the new method it was established that there is a slight difference between the figures actually found for the acetaldehyde present in the sulphite waste liquor and those obtained by calculation. However the error is not so great as to be beyond experimental limits.

It has been proven that the loosely held sulphurous acid is not active in the formation of acetaldehyde, at least as far as its entirety is concerned. The quantities calculated as sulphur dioxide, are comparatively small but on the other hand they are much too large to be covered by the solubility of the calcium sulphite. It can be deducted from the experiments that have been carried out that the sulphurous acid, which is combined with organic substances, such as lignin, carbohydrates, etc., is in equilibrium with a certain definite quantity of sulphurous acid present, which can be titrated with iodine.

The Use of Iodine in the Methods

If then a sample of titrated liquor, in which the analysis was conducted by means of iodine, is allowed to remain standing until a lasting blue coloration forms, then the same liquor sample will be found to consume a greater or less amount of iodine after a certain time has elapsed. The reaction takes place at such a speed that it is hardly to be imagined that the consumption of iodine is due to its absorption by the organic compounds in the liquor.

Then again the further the neutralization is carried, the less will be the consumption of iodine by direct titration. Samples of liquor, which have been saturated with excess lime, consume, after they have first been slightly acidified, just as much iodine as samples of liquor which were first saturated with a slight amount of acid in excess. In fact it is gathered that the largest part of the loosely held sulphurous acid is split off, which is of course to be expected.

Character of Pulp and Alcohol Recovery

It is stated by Sieber that in the production of alcohol from sulphite waste liquors from making easy bleaching sulphite pulp, there is obtained a spirit which contains considerably smaller proportions of acetaldehyde than is obtained from the waste liquors of the so-called strong pulp. The figures for acetaldehyde vary between 0.07 and 0.40 gram per 100 grams of the alcohol. From the investigations that Sieber made on this subject it follows that the actual acetaldehyde content of the alcohol varies between the limits of 0.6

*Svensk Kemisk Tidskrift, No. 7, 1923.

to 3 per cent of the weight of the alcohol. Hence in the principal fraction obtained in the distillation of the alcohol there is only approximately one-tenth of the total quantity of acetaldehyde.

The results obtained in the experiments made on this particular phase of the subject are given in the following tabulation:

WASTE LIQUOR FROM EASY BLEACHING PULP

Before fermentation	Quantity of alcohol in 100 cc. of liquor	Quantity of acetaldehyde, in 100 cc. of the liquor	Acetaldehyde on alcohol
%	g.	g.	%
4.83	0.791	0.019	2.45
6.01	0.818	0.014	1.65
6.82	0.800	0.012	1.45
	Waste liquor from the strong pulp.		
4.02	0.533	0.012	2.27
5.82	0.600	0.0086	1.43
7.60	0.569	0.0067	1.18

Formation of Acid During Fermentation

It has been known for a long time that yeast, when allowed to grow in various nutritive media, will form acids. Acid is also obtained in the alcohol fermentation of sulphite waste liquors. The quantity of acid, found in the liquid by the usual titration methods, is interesting. Nevertheless from the physiological standpoint of fermentation, the more determinative factor is the hydrogen ion concentration in the substratum.

Results from a series of investigations have shown what the limits of acidity are in the course of the fermentation of the liquors. The determination of the hydrogen ion concentration has been found to be a satisfactory method. It was also found that the degree of acidity found in the sulphite waste liquor at the completion of fermentation does not correspond to the hydrogen ion concentration most favorable for the formation of alcohol. A number of samples were tested and it was established that the best percentage of acid in the liquor, as far as the formation of alcohol was concerned, was 5 and 6 per cent for two separate cases, one where the sulphite liquor was first directly neutralized and the other where it was terated with hydrochloric acid and then neutralized. In the first case the maximum amount of acid formed was 4.4 per cent and in the second case 4.2 per cent of acid was formed.

Output

Relation Between Hydrogen Ion Concentration and Alcohol

In practical work it has long been known that there was a close

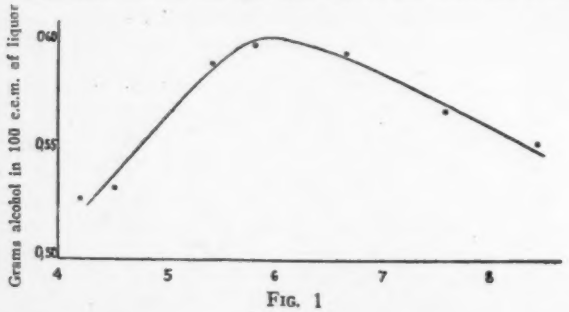

FIG. 1

relationship between the hydrogen ion concentration and the quantity of alcohol obtained in the fermentation. In determining what the best percentage of acidity was for the formation of maximum yield of alcohol a liquor was used from the manufacture of strong pulp. The liquor was then saturated with calcium carbonate and slaked lime according to common practice and air was lead through it at a temperature of 90 degrees C. The results obtained in the fermentation of samples containing varying amounts of acid are given in Fig. 1.

A test was made to determine the sugar content of the liquor and that was found to be 2.13 grams, calculated as glucose, per 100 cc. The conclusion that may be drawn from Fig. 1 is that the most advantageous percentage of acid in the waste liquor, as far as formation of alcohol is concerned, is 6 per cent. The greater or less the acidity is than this figure, the smaller will be the production of alcohol. Furthermore the reduction in the output of alcohol is greater when the acidity increases than when it decreases.

If the sulphite waste liquor is first treated with an excess of hydrochloric acid at a temperature of approximately 90 degrees C, before it is neutralized, then it is found that the fermentation will produce quantities of alcohol, varying with the acid content of the liquor, in accordance with the curve shown in Fig. 2. The preparation of sugar

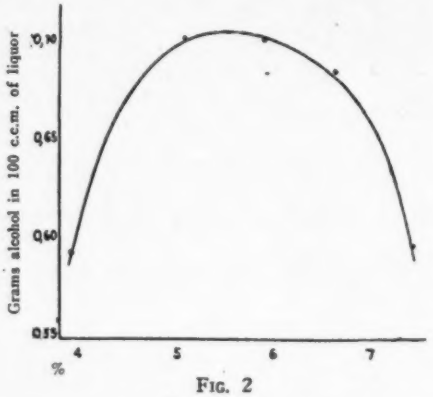

FIG. 2

in the liquor amounted to 2.38 grams per 100 cubic centimeters.

What the Curve Shows

The curve (Fig. 2) shows clearly that the preliminary treatment did not serve to raise the percentage of acidity which is best for the formation of the alcohol. In this case the highest yield of alcohol was obtained with an acidity of 5.5 per cent, but the quantity of alcohol obtained at this optimum point is considerably greater than that recovered in the first case. This is to be based on the fact that the hydrolysis of the wood dextrin contained in the sulphite liquor produces a greater amount of alcohol. The increase in the alcohol output is more than one-tenth of a gram per 100 cubic centimeters of the waste liquor or approximately 17 per cent.

As may be seen from Fig. 3 the waste liquor obtained from the digestion of easy bleaching pulp gave the maximum yield of alcohol on direct neutralization, namely of 6 per cent. The sugar content

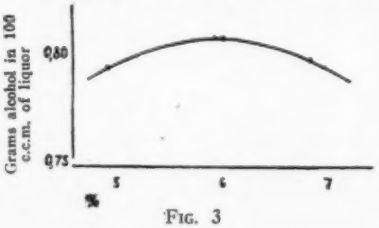

FIG. 3

of the liquor, as treated above, amounted to 2.44 grams in 100 cubic centimeters of liquor.

Experimental Part

For making this experimental investigation there were used two different sulphite waste liquors, one of which was from the manufacture of strong pulp and the other from easy bleaching pulp.

The liquors were neutralized in the following manner. One hundred cubic centimeters was heated in an enamelled vessel while a current of air was blown through the liquid. The temperature was 90 degrees C, and while being heated chalk and lime were gradually added to the liquor in small quantities. The time required for the neutralization varied between 1 and 4 hours. The liquor was allowed to stand for a few hours after neutralization.

During this time the slime produced by the neutralization settled

to the bottom of the vessel and the major portion of the clear liquor was decanted.

The precipitated slime was stirred up with a little water and then centrifuged. In this way it was possible to remove practically all of the liquor from the slime. The decanted liquor was then centrifuged in order to remove traces of the precipitate. A quantitative separation was accomplished in this manner and a perfectly clear solution was obtained. The clear solution was then made up to volume of 1 liter. This is necessary as during the neutralization a considerable proportion of the water was evaporated. Before fermentation the liquor sample, 1000 cc. in volume, was mixed with the following:

10 cc. of a solution containing 0.25 gram of ammonium sulphate.
10 cc. of a solution containing 0.05 gram of N2 $Na_2PO_4.12\ H_2O$.
10 cc. of a sterilized yeast extract, 1 part of yeast to 6 parts of water.
20 grams of pure distillers' yeast in 20 cc. of water were also added to found the nutritive medium for the development of the yeast culture.

The hydrogen ion concentration of the mixture was determined directly after the yeast and the nutritive medium have been added. The analysis was made by the electrolytic method. The fermentation was carried out at a temperature of 30 degrees C and all chances of infection were guarded against. The fermentation was complete in each case in 84 hours, as at that time there was no further evolution of carbon dioxide gas.

The contents were then placed in a liter flask and at first 300 cc. was distilled over. The distillate was then diluted with water and

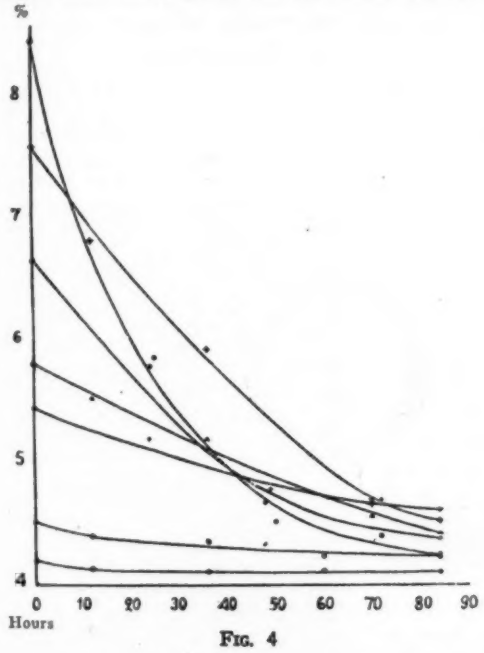

FIG. 4

neutralized. From this solution 250 cc. were then distilled over and the amount of alcohol and aldehyde in the distillate was determined.

Control Tests

The fermented solutions were mixed with an excess of barium chloride after cooling, then a chalk mud was added and 250 cc. of this solution were distilled over. The alcohol and the aldehyde content was determined in this solution as well. The results of both analyses agreed.

The alcohol content was determined from the specific weight of the distillate. The percentage of aldehyde in this solution made it necessary to correct the values obtained to a certain degree. The aldehyde was determined by a method which depended on the fact that aldehyde reacts with hydrox lamine chlorhydrate with the liberation of an equivalent amount of hydrochloric acid which is then titrated with sodium hydroxide using methyl orange as an indicator. It was found however, that this method did not give very accurate results because of the difficulty in recognizing the color change that takes place in the indicator.

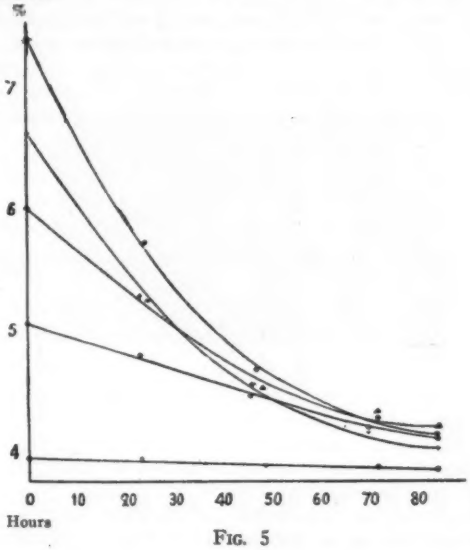

FIG. 5

The formation of acid during the fermentation of the waste liquor is shown in the curve sheet (Fig. 4). In the second series of experiments the waste liquor was first treated for 2 hours with hydrochloric acid at an elevated temperature. The concentration of the hydrochloric acid in the liquor was 0.87 per cent which corresponded to 150 per cent of the quantity of free and loosely combined sulphur dioxide in the liquor. In this case it was found that no acetaldehyde was formed in the fermentation of the liquor.

The results obtained from this series of experiments are shown in

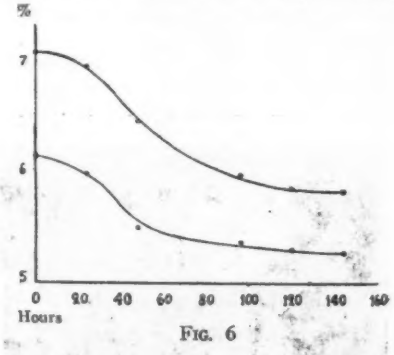

FIG. 6

graphical form in Fig. 5. In this as well as in Fig. 4 the time in hours is plotted as abscissae, and the percentage of hydrogen ion concentration as ordinates.

In these experiments a pure yeast culture was employed. The purity of the yeast was of the greatest possible. Right at the outset of the fermentation the quantity of yeast added was sufficient for the purpose so that propagation of the yeast cells did not take place. For control purposes several tests were made with a pure culture of sterile yeast. The same conditions were observed in this case as well. In this case a propagation of the yeast cells did take place. The aeration of the mass with sterile air furthered this action. During the fermentation aeration took place every 12 hours, and at this time for a period of 10 minutes.

The formation of acid in this case was rather considerable. This can be seen in graphical form in Fig. 6. In this case the concentration of hydrogen ions is not as great as in the others.

A Complete Automatic Control System for Paper Machines

This system automatically maintains a uniform paper thickness either by controlling the amount of stock delivered or the speed of the papermachine.

The need for some means of automatically maintaining a uniform paper thickness has always been recognized by the paper makers.

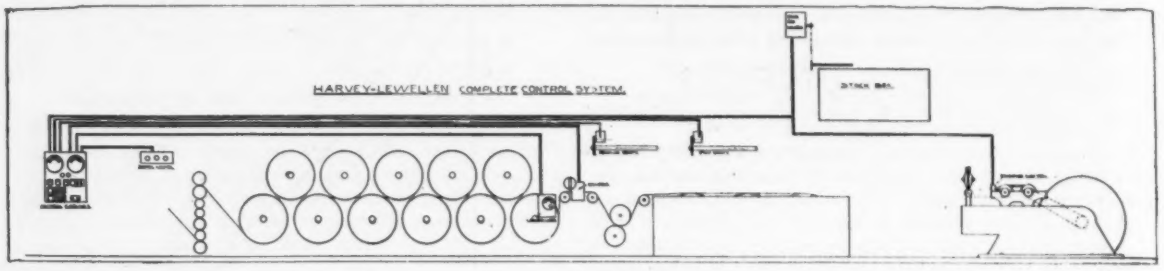

FIG. 1

A number of plans have been developed but heretofore for various reasons these have not been a success.

Although the Harvey-Lewellen Control System has been in successful operation at the Gardner-Harvey Paper Company's No. 2 Mill in Middletown, Ohio for more than a year, the manufacturers have withheld announcement until every unit of the system had been thoroughly tried out in actual service.

With the system a uniform paper thickness is maintained, the maximum variation being one one-thousandth of an inch on the finished paper.

Description of Units

The complete system is diagramatically shown in the line drawing, Fig. 1. This is not intended to show the design of a modern paper machine but only to illustrate the method of operation. As will be seen the complete system includes the following units, caliper, controller, stock box control unit or governor control unit, control cabinet and signal light box.

The caliper, which is more clearly illustrated in Figs. 2 and 3 consists of a mechanism carrying two rollers between which the

FIG. 2

paper passes, a dial on which is indicated the thickness of the paper being made, and contact points which operate automatic relays in the control cabinet. One of the rollers is held in position by spring tension which permits of its sudden movement without affecting this caliper reading. This permits the passage of chips, accumulated paper stock or anything which might cause a sudden fluctuation in the reading.

One dial of the caliper is movable and in determining the thickness of paper it is only necessary to loosen a thumb screw and move this dial to the thickness desired.

The controller Fig. 4, is driven by the paper machine, the mechism being arranged to impart operating impulses to the stockbox control unit or to the governor control unit. The duration of the impulse and the interval of time between the impulses is adjustable. This controller acts directly upon an interrupting switch which energizes one of the unit operating motors.

The Control Units

The control units at the governor, Fig. 5, or the stockbox, Fig. 6, consist of motor-operated mechanisms which either operate the stockbox gate screw or the governor control. These units are provided with safety stops so that their operation is automatically stopped when the stockbox is either wide open or closed or when the engine reaches its fastest or slowest speeds.

The control cabinet, Fig. 7, encloses the tachometers, relays,

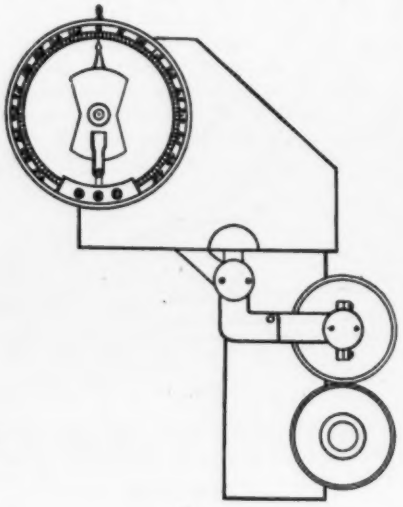

FIG. 3

signal lights, automatic switches and interrupting switches The signal light box encloses three lights, one each—blue, red and white. The center light is white. The tachometers are of special design and are geared directly to the variable speed lineshaft and the constant speed lineshaft.

How the System Operates

The system maintains a uniform paper thickness even though the paper machine or the pumps run at irregular speeds. To illustrate:

If the paper runs then on account of the pump speed slackening, the control will automatically admit more stock to the papermachine. If, on the other hand, the machine drive should slow down the system will automatically reduce the amount of stock delivered to compensate for this change. The system also acts in the same manner in case the pump belts slip. In fact, this system takes care of any conditions which might tend to cause a variation in the paper thickness.

Starting at a time when the paper is running at the proper thickness the conditions will be as follows—the pointer on the automatic

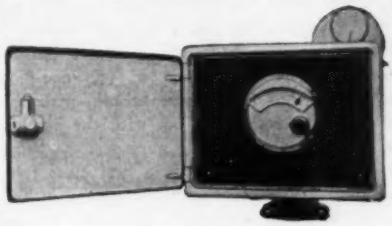

FIG. 4

caliper will be standing at the point indicating the proper thickness and at this time the center, or white light in the signal box is lighted.

Should the paper increase in thickness for any reason the caliper immediately indicates this change and at the same time lights the red signal light and throws an automatic switch in the control cabinet which determines the direction of movement of one or the other of the control units. This condition continues until the controller imparts an operating impulse by closing the interrupting switch in the control cabinet. The instant this is closed one of the control unit motors starts and continues in operation until it is interrupted by the controller.

FIG. 6

The timing of the impulses in the controller is fixed so that the time between the impulses is of sufficient duration to allow the changes of the stock condition to register on the caliper. In other words, after one impulse of the controller, the different control units remain in their respective position until sufficient time has elapsed to permit the increased or decreased supply of stock to affect the thickness of the paper as it passes between the caliper rollers. If this impulse has been sufficient to bring the paper back to the proper thickness the caliper shifts to its central position, extinguishes the red light and relights the white light. If, on the other hand, the impulse has not been sufficient to correct the paper thickness the caliper indicates this and the red light continues burning and the controller imparts another impulse to the unit operating motor.

This cycle of operation is repeated until the caliper moves to its central position and relights the white light. In case the paper

FIG. 5

should run too thin, the caliper will indicate this and light the blue light in the same manner as described above.

The controller is provided with an adjustment for fixing the length of the impulses and also the interval between the impulses, as well as a dial to indicate the duration of the impulses in seconds.

This is the only operating adjustment in the entire system. In operation the machine tender changes this adjustment by simply turning a small knurled knob. Proper adjustment is indicated when the signal lights change from blue to white or from red to white as the case may be. If these lights flash red to blue or from blue to red it indicates that the length of the impulses is too great. This adjustment is easily made by the machine tender while the system is in operation. It has been found, in actual practice that when once set, this impulse controller requires very little adjustment.

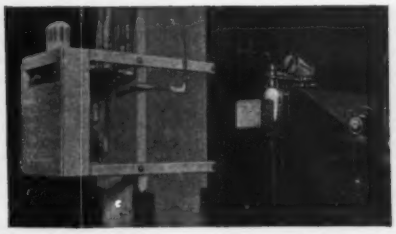

FIG. 8

CONTROL CABINET, CONTROLLER AND CALIPER SHOWING CALIPER LOCATION BETWEEN LAST PRESS AND FIRST DRIER.

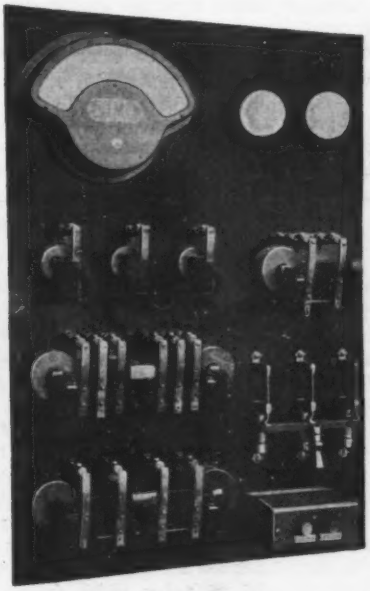

FIG. 7

The standard speed for the pump shaft or constant speedline shaft is indicated on the tachometer and any variation from this speed is easily detected. When the stock box control unit or the governor control unit is moving a signal light in the control cabinet is

flashed at intervals. The signal light simply indicates that the system is operating.

In some installations a variable speed direct current motor is used for driving the paper machine and in that case the thickness is determined altogether by controlling the stockbox gate screw. The rheostat which controls the motor speed and the paper machine speed is equipped with a motor unit which is operated by a push button station located in the control cabinet. In case it is desired to change the paper machine speed the machine tender simply holds down the "fast" or "slow" button as the case may be until the machine tachometer indicates that the machine is running at the desired speed.

A very important feature of this control system is the provision for calipering the paper between the last press and the first drier. This provides a much more accurate control than would be possible if the control was made from the paper after it passed through the calendars. One of the principal difficulties with the hand method now universally used is that the variation in the paper thickness is not discovered until the paper is finished. When this variation is discovered it represents a change in the stock which has taken place some time before and when the machine tender makes a change in the stockbox screw he has no assurance that the correct change is made because the consistency of the stock may have changed further since the stock just finished passed the stockbox gate.

On one of the machines now equipped, the caliper is located at a point where the paper reaches it within 70 to 180 seconds after it passes the stockbox, depending upon the speed at which the machine is running. On this same machine if the usual means were used a variation in paper thickness would not be discovered until fifteen to twenty minutes after the stock passed the stockbox gate.

Another distinct advantage of this system is the fact that it will automatically maintain a uniform thickness without regard to the cause of the variation in caliper. In one instance it was found that the pump shaft had changed speed because of some slight trouble with the governor. When this was detected on the tachometer the proper adjustments were made and the speed restored to the proper running speed. There was no variation in paper thickness, however, because this system automatically compensates for these conditions.

The Construction

In the construction of the caliper the very finest materials are used, the contact points being made of pure platinum. The mechanism of the caliper is mounted on ball bearings which are completely enclosed. The controller is provided with an automatic quick brake and the ones now in operation have required no attention whatever during the past year. The construction of the controller is shown in Fig. 4.

The current carried through the caliper and relays is about 15 milliamperes. The maximum current required for the entire system is about 5 amperes, the circuit used being 220 volt, 60 cycle, 3 phase. All the parts in the motors as well as on the various parts of the control units are mounted on enclosed ball bearings which require no attention whatever.

In the installation shown the machine is driven by a Hamilton cross-compound engine on which the governor is driven with a Lewellen No. 13 Transmission. This transmission, as will be noted, is equipped with a shifting motor affording automatic control, operating switches and tachometer. The tachometers are all specially designed and are calibrated to indicate revolutions of the pump shaft and feet per minute on the paper machine.

The automatic caliper is a modification of the Harvey recording caliper which has been on the market for several years and is manufactured by the Enterprise Machine Company, Middletown, Ohio. The other parts including the transmission, controller, control cabinet, stock box control units, governor control units and tachometers are manufactured by the Lewellen Manufacturing Company, Columbus, Indiana.

What Tom Harvey Thinks of It

Tom Harvey of the Gardner & Harvey Company, who has this system in operation says, "Ever since paper has been made, one of the hardest problems the manufacturer has had to contend with has been to keep the paper the desired weight or thickness, and as the paper increases in thickness the problem becomes all the harder.

"In making tissue paper, the machine will run days with but very little variation in weight, but on a machine making heavy boxboard, it is so difficult to keep the thickness uniform that the trade customs allow us a variation of one one-thousandths in thickness each way from the specific caliper, making a variation of two one-thousandths acceptable, but with the increasing demand for boxboard for high-class printing purposes, the printers contend that it is practically impossible to do a first class job of printing on board that varies even two one-thousandths in thickness, and the box makers who use automatic machines have all kinds of trouble if the thickness does not run uniform.

"As manufacturers of boxboard, the Gardner & Harvey Company of Middletown, Ohio, has been fighting this problem for a long time, and about four years ago they perfected a micrometer that gives a continuous record of the thickness of the paper as it is being made, and just recently by working with the Lewellen Manufacturing Company of Columbus, Indiana they have installed this micrometer between the press roll and the first dryer and connected it with the stuff box of the machine, so that the slightest change in the thickness of the paper at the press roll, is automatically taken care of at the stuff box, with the result that the paper is always the desired thickness.

"In the past it has been impossible to determine the thickness of the paper until it reached the cutter of the machine but with this micrometer installed at the press roll, the machine tender is instantly informed by a system of red, white and blue lights before the paper is taken over the dryers, if the paper is the desired thickness or not. The red light lights when the paper is one one-thousandth heavy; the white light when the paper is correct for caliper, and the blue light when it is one one-thousandth thin, therefore, saving a large amount of paper each month that if made off caliper, would either have to be cut into some other order, sold as a job lot, or taken back to the beaters.

"Few people appreciate what this means except a machine tender running a large machine on heavy paper. He is constantly on the alert for if he is on a heavy sheet he knows that there is danger of the sheet dropping off the felt if it gets three or four points heavy, and if it gets light it will be too dry and snap off at the calendars, but with this micrometer installed he knows the caliper cannot vary, and he can give his attention to other parts of the machine."

The Story of Corrugated Paper

The Thompson and Norris Company of Concord and Prince streets, Brooklyn, have issued a book which will be read with a great deal of interest by those into whose hands it falls. It is entitled "The Golden Anniversary of Corrugated Paper" and presents a vast amount of information on the subject of corrugated papers gained by the long experience of this company which was a pioneer in that line. The business was founded by Robert H. Thompson and Henry D. Norris on April 1, 1875, and the foreword to the book briefly reviews the company's career. The remainder of the book is devoted to the story of the evolution of corrugated paper and it is told in a fascinating way. The text is made doubly interesting by numerous illustrations and, taken all in all, the book may be referred to as a very valuable contribution to trade literature.

The Degree of Delignification of Cellulose*

It is interesting for a mill to know the degree of delignification of pulps at its disposal in order to be better able to select the one most suitable for its purpose. In this way it may frequently be possible to avoid useless expense, such as would result from excessive beating of too soft a stock or selection of an unduly hard stock for bleaching.

But most of the methods available for determining with sufficient accuracy the hardness of the stock can only be carried out by an experienced chemist in a well-equipped laboratory. Consequently, in mills which are not provided with chemical laboratories the hardness of the pulp is estimated very roughly by observing its behavior with certain substances such as chlorine water, malachite green, potassium dichromate, fuming nitric acid, etc. The pulp can be classified according to the depth of the color produced with these reagents; but the personal factor plays an important part in the interpretation of the results, and the method lacks precision.

Method Devised by Dr. Roschier

These disadvantages are overcome by the method devised by Dr. Helmer Roschier, which was published a short time ago in *Papers och Trazarutidskrift for Finland*, and we consider it worth describing.

The principle of the method is as follows: If a given weight of pulp is added to a definite volume of standard potassium permanganate solution, the rate of absorption of the permanganate by the incrusting materials remaining in the pulp will vary inversely as the purity of the pulp. The time required for the absorption thus furnishes a measure of the degree of delignification of the pulp, which can be expressed by means of a definite figure.

The permanganate is best used in the form of a hundredth-normal solution, which is acidified with sulphuric acid immediately before use.

Technique for Carrying Out Test

The following technique is recommended by the author for carrying out the test: Weigh out 2 grams of finely-divided, airy-dry pulp. Pour 80 cc. of hundredth-normal potassium permanganate in a 300 or 400-cc. beaker and acidify it with 1.6 cc. of normal sulphuric acid. Add the pulp to the permanganate, and at the same time start a stop watch. Stir gently and evenly and at the same time carefully observe the color of the solution. When the latter changes from violet to light yellow, stop the watch. The change can readily be seen by looking at the solution by transmitted light.

The temperature of the peremanganate should be carefully noted, for it has a considerable effect on the velocity of the reaction.

Tests on a Number of Samples

Tests carried out on a number of samples of sulphite pulp showed the following variations in the time required to decolorize the solution when working at a temperature of 20° C.:

	Seconds
Easy bleaching	70
Hard bleaching	50–70
Medium hard	35–50
Hard	25–35
Extra hard	25

The author repeated the determinations on the same pulps but at different temperatures, and then determined the chlorine number (by the Sieber method) of each sample. By plotting the time required to decolorize the permanganate as abscissas and the corresponding chlorine numbers as ordinates, curves are obtained which are asymptotic to both axes. When the time required to decolorize the permanganate is known, the chlorine number is readily found from the curve.

The relation between the two tests is clearly brought out in the out in the following table:

Time Required to Decolorize in Seconds	Degree of Delignification of Pulp, Expressed as Chlorine Number (Sieber Number) When Decolorization is Carried Out at the Following Temperatures			
	18° C.	20° C.	25° C.	30° C.
20	...	6.30	5.00	4.20
25	5.85	5.25	4.25	3.55
30	4.90	4.30	3,60	3.15
35	4.20	3.75	3.20	2.80
40	3.70	3.40	2.90	2.55
45	3.30	3.10	2.70	2.35
50	3.05	2.85	2.50	2.20
50	3.05	2.85	2.50	2.20
55	2.85	2.70	2.35	2.05
60	2.70	2.55	2.20	1.95
65	2.55	2.40	2.10	1.80
70	2.45	2.30	2.00	1.70
75	2.30	2.20	1.90	...
80	2.25	2.10	1.80	...
85	2.15	2.00	1.75	...
90	2.05	1.95	1.70	...
100	1.95	1.80	1.55	...
110	1.85	1.70	...	...
150	1.70	1.55	...	...

Owing to the asymptotic character of the curves, the results are not as accurate for very hard or very soft pulps as for medium pulps. But this can be corrected to a certain extent by using hundredth-normal potassium permanganate for the strong pulps and two-hundredth-normal solution for the easy-bleaching ones. The amount of sulphuric acid used must be proportional to the strength of the permanganate.

Advantages of the Method

The method possesses the following very appreciable advantages:

1. The technique is very simple.
2. The test is quickly carried out.
3. The solutions required are quite stable.
4. No expensive reagents are required.
5. The hardness of the pulp can be determined even during cooking.

A. P. W. Paper Co. Gets Pulp by Ocean Freighter

ALBANY N. Y., June 22, 1925.—Slipping quietly up the Hudson river under her own steam and negotiating the channel without mishap, the Norwegian steamer Facto, a typical ocean tramp freighter, today stamped Albany as a world port by bringing here the first import cargo to be cleared through the port of Albany.

Guided by Willard Hollenbeck of Athens, the freighter, loaded with 1,100 tons of ground pulpwood from Sheet Harbor, Nova Scotia, to the A. P. W. Paper Company, at North Albany, swung to her moorings at the barge canal terminal at 12:08 o'clock this afternoon.

"The Facto will return to Albany with another cargo," said Donald G. Kibbey, traffic manager of the A. P. W. Paper Company. "The ship will return probably within a fortnight, and during the navigation season we will bring ten shiploads of baled pulp to this port.

"The cargo brought by the Facto is worth approximately $20,000, and we are saving about thirty per cent of the shipment charges by bringing it direct. Heretofore we have been transhiping by barge from New York. The Facto's successful voyage has revealed to us that we have been losing money. It is a business proposition with us and we are going to continue to ship direct.

The Facto will not return to Sheet Harbor in ballast. She will carry thirty tons of cargo from the A. P. W. company, and ten tons of stores, including meats, vegetables and groceries, all of which will be purchased in Albany.

* Translated from *Le Papier* xxviii, 325-326, March, 1925, by Papineau-Couture.

Current Paper Trade Literature

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Paper Making Industry

Clarence J. West, Chairman

Dyes and Dyeing

Use of Soda Ash in the Beater Coloring of Sized Papers. W. C. Holmes. *Am. Dyestuff Rept.* 13, 561-564 (1924). The use of soda ash in the beater improves the coloring of sized papers of a variety of materials with both basic and acid dyes.—C. J. W.

Affinity of Basic Dyes for Bleached Sulphite Fiber. G. K. Spence. *Am. Dyestuff Rept.* 13, 345-346 (1924). Dyes with a strong affinity for the fiber may be attached to the fiber at the point where the dye is added and before it is mixed with the balance of the stock in the beater, thus causing a mottled appearance very noticeable in a tinted sheet. Directions for determining the affinity of the dye for the fiber are given. Any dye with an affinity of not over 24 per cent may be used without extra precautions to avoid mottling. Bismarck brown with an affinity of 94 per cent should be avoided. Magenta with a 79 per cent affinity must be handled with care to avoid mottling.—A. P.-C.

Evaluation of Tannic Acids for Paper Coloring. E. Sutermeister. *Paper Ind.* 6, 855-856 (Aug., 1924). Two methods of dye precipitation were tried out: titrating a methyl violet solution with one of tannic acid at 50° C. until a small portion filtered through a good grade of filter paper gave a colorless filtrate; titrating methylene blue in slightly ammoniacal solution and determining the end point by spotting on a piece of filter paper. In neither case could a good end point be obtained. Another method tried was: pulp 10 g. of bleached sulphite in 750 cc. of water, bring to a boil, add 0.3 g. tannin in 15 cc. of water, boil exactly 3 min., let stand for 3 hr., filter on a Buchner and suck as dry as possible but do not wash, transfer to a solution of 10 g. ferrous sulphate in 750 cc. of water, keep on the steam bath for 30 min. with frequent stirring, filter on a Buchner, wash once with hot water, make into sheets, dry on a steam heated cylinder, and compare for color with standards prepared with known amounts of pure tannic acid. This gives a measure of the coloring power of the tannin or of its affinity for the fiber, but not of its dye precipitating power. G. L. Clark suggested the following method: dissolve 0.1 g. methylene blue and 0.2 g. tartar emetic in 200 cc. water, heat to 50° C., and titrate immediately with a 1 per cent solution of the tannin material to complete precipitation of the dye. The end point is determined by filtering 2 cc. through a small filter paper, and noting the color of the filtrate, which will be colorless at the end of the reaction. No difficulty was experienced in getting the end point. Samples tested by this method and by the ferrous sulphate method were rated in the same order but with somewhat different values.—A. P. C.

Dyestuff Testing in the Paper Industry. A. Noll. *Papierfabr.* 22, 361-363 (Aug. 10, 1924); *Zellstoff U. Papier* 4, 184-185 (Aug., 1924). An address in which are outlined the general methods of testing and recognizing the dyestuffs usually employed in the paper industry. Dextrin and zinc chloride serve chiefly as diluents for basic dyes; Glauber's salt is used with acid and substantive dyes. The dextrin is recognized by its odor or by extraction of the dye with alcohol, in which the former is insoluble. The salts may be detected in the ash. Often sodium chloride is used instead of the sulphate.—J. L. P.

Measurement of Color. J. Melrose Arnot. *World's Paper Tr. Rev.* No. 19 (May 9, 1924); *Papierfabr.* 22, 349-351 (Aug. 3, 1924). The Ostwald color measurement method is considered as a suitable test for the color of bleached pulps.—J. L. P.

Manufacture of Colored Paper Stock. C. A. Braun. Ger. pat. 397,927. *Papierfabr.* 22, 345 (July 27, 1924). A paper stock is manufactured from reeds, straws, and similar raw material by treating the chopped mass in a digester under pressure for 5 hr. at a maximum temperature of 160° C. in the presence of a liquor which contains alkali and alkaline earth sulphites and weak acid salts. The latter do not yield free sulphurous acid and consequently the walls of the iron digester do not suffer from corrosion.—J. L. P.

Drying

Driers and Drying. J. W. Brassington. *Pulp & Paper* 22, 989-990, 1006 (Sept. 25, 1924). After briefly reviewing present types of driers and drying methods, showing their shortcomings, the author describes a caterpillar type of drier, suitable for handling boards which cannot be curved or bent in such a manner that they can be reversed in direction at either end of the machine and delivered in straight lines until in contact with subsequent heating surfaces. He also shows the general adaptability of the machine to the drying of "loft dried" paper automatically and efficiently and at the same time giving it the required finish.—A. P.-C.

Drying Paper. C. H. Leicester. *Paper Trade J.* 79, No. 13, 43-44 (Sept. 25, 1924). A discussion of various factors affecting drying efficiency.—A. P.-C.

Paper Drying Tests. *Paper Trade J.* 79, No. 9, 52-54 (Aug. 28, 1924). A discussion of changes effected in the Drying Code of the Paper Drying Committee of TAPPI with reasons for the changes.—A. P.-C.

Drying Paper in a Vacuum. Thomas J. Keenan. *Paper* 34, 699-701 (Aug. 7, 1924). A description of the Minton vacuum paper machine drier and of its operation.—A. P.-C.

Cylinder Drying of Paper. Ernst Reutlinger. Ger. pat. 396,370. *Papierfabr.* 22, 275 (June 15, 1924). Horizontal and vertical drying cylinders are arranged so that the strip of paper first dries in a horizontal position and then goes to the vertical driers.—J. L. P.

New Drying Process for Heavy Boards. H. R. Masters. *Paper Mill* 48, No. 32, 30, 32, 34 (Aug. 9, 1924). A description of the Coe Manufacturing Co.'s drier, with a discussion of its merits. The board, in flat sheets, is passed continuously over or between a smooth bed of rollers. Heating is obtained by steam coils between each deck of rolls. A system of steam circulation at high velocities in stages is used, with condensate removed by tanks at intervals, similar to that used on many regular paper machines. A fan circulating system is provided so as to maintain a high air velocity over the surface of the board. The boards pass first into the low temperature, high humidity zone to prevent blistering, then progressively through the drier with the temperature increasing and the humidity decreasing. Some boards, such as gypsum board, require different treatment, and the temperature and humidity in the different stages of the drier may be varied to suit the product. The speed of the rollers may be varied to suit different thicknesses and classes of board. The major portion of the air is recirculated, or may be put through a Briner economizer to heat the incoming air.—A. P.-C.

Drying of Paper. William Goldsmith. *Paper Trade J.* 79, No. 9, 49-51 (Aug. 28, 1924). A discussion of the various factors affecting the efficiency of paper machine driers, showing the precautions which should be taken to ensure most economical operations. The article is based on the results of much investigation and numerous tests run at the Pejepscot plant of the Pejepscot Paper Co.—A. P.-C.

Paper Testing and Analysis

Paper **Testing—An Inexpensive Insurance.** H. E. Bishop *Paper Mill* 48, No. 31, 4 (Aug. 2, 1924). Brief discussion of the necessity for testing paper purchases.—A. P.-C.

Relative Humidity and Paper Testing. F. A. Curtis. *Paper Trade J.* 79, No. 8, 48-49 (Aug. 21, 1924); *Paper* 34, 800-801 (Aug. 21, 1924); *Paper Mill* 48, No. 33, 4, 6 (Aug. 16, 1924). A discussion of the advisability of changing standard conditions of physical testing from 65 to 50 per cent relative humidity. The author recommends that no change be made from the present 65 per cent relative humidity standard pending further investigation.—A. P.-C.

Analysis of News Print. Alfred Tingle. *Paper* 34, 759 (Aug. 14, 1924). Under conditions difficult to define and which cannot invariably be reproduced at will, overstaining with Herzberg's stain can cause groundwood and other lignified fibers to assume the blue color generally considered peculiar to wood cellulose. The overstained fibers can be bleached by washing thoroughly with distilled water and allowing any residual iodine to evaporate, after which they can be stained normally again. Staining normally, then abnormally, and again bleaching out apparently can be repeated indefinitely.—A. P.-C.

Determination of Groundwood in Printing Paper by Means of Potassium Permanganate. Johannes Teicher. *Zellstoff U. Papier* 4, 113-115 (June, 1924). Other methods for the determination of groundwood are critically examined. The Roschier permanganate method is rapid and simple, but is not accurate. A somewhat similar procedure is given which employs an acid solution of permanganate. It is claimed to be rapid and to give accurate results. One gram of the rasped sample is placed in a 300 cc. Erlenmeyer flask with a mixture of 10 cc. hydrochloric acid (specific gravity 1.19) and 90 cc. water. The mixture is stirred for 2 min. and the temperature regulated at the same time to exactly 20° C. 15 cc. of a 0.10-normal potassium permanganate solution are quickly added and the time, in seconds, is observed until the decolorization of the permanganate is complete. Paper consisting of pure chemical pulp, which contained 2 to 4 per cent lignin and was practically free from ash, required 120 seconds for decolorization; a 100 per cent groundwood sheet decolorized the solution in 60 seconds. Paper containing both groundwood and chemical pulp is decolorized in a time commensurate with the groundwood content. If the chemical wood pulp contains less than 1 per cent lignin, a longer time is required for the reaction. Paper with high ash content necessitates a larger sample; a table is listed showing the sample required for ash contents from 5 to 35 per cent.—J. L. P.

New Apparatus for Testing the Bending Strength and the Angle of Bend of Carboard, Etc. Mart. Naumann. *Wochbl. Papierfabr.* 55, 2073-2077 (Aug. 16, 1924); 2202-2205 (Aug. 30); 2263-2268 (Sept. 6). The new Naumann-Schopper bending tester for heavy papers, cardboard, etc., is described at considerable length. The results of actual tests are reproduced in order to demonstrate what may be expected of the instrument. The following advantages are claimed for the tester whether in the hands of the producer or consumer of cardboard: constant control of product; influence of thickness and pressure on the bending properties can be ascertained; manufacturing variables can be studied; the angle of break is easily determined; and the uniformity of the cardboard may be followed.—J. L. P.

Testing Waterproofed Paper. F. T. Carson. *Paper Trade J.* 79, No. 10, 48-50 (Sept. 4, 1924). Definitions, terminology and testing requirements are briefly discussed, and 2 common types of water resistance tests outlined, one depending on absorption of moisture by a hygroscopic substance, and the other on visible evidence of penetration of water through paper under a water column. The latter method is inadequate, because with very slow penetration the moisture evaporates as rapidly as it passes through and never accumulates. A modified form of the Stockigt sizing test, depending on the color reaction of two solutions applied to opposite sides of the sheet, is described; but results are affected by the composition of some papers, the color being very weak or failing to appear in testing certain kinds of paper, though it was certain the two solutions had met. A new method is described and proposed, consisting essentially in placing a piece of paper with water in contact with one side on a ground glass surface against a dark background. Water passing through the paper is held between the paper and glass and makes the latter more transparent.—A. P.-C.

Miscellaneous

..Cost Figures in Paper Production. E. R. Calvius, Jr. *Wochbl. Papierfabr.* 55, 1877-1881 (July 26, 1924). Cost figures in the manufacture of different kinds of German papers are given.—J. L. P.

Ways and Means of Lowering Production Costs in the Manufacture of Pulp and Paper. Anton D. J. Kuhn. *Papierfabr.* 22, 325-328 (July 20, 1924). An address in which the present difficulties of the German pulp industry are discussed. Ways and means of overcoming these difficulties are suggested.—J. L. P.

Oriental Papermaking Methods. R. Bouvier and A. Ruby. *Paper Trade J.* 79, No. 5, 43-50 (July 31, 1924). See *Pulp & Paper* 22,671 (June 26, 1924); *Paper Trade J.* 79, No. 2, 46 (July 10, 1924).—A. P.-C.

Furnishes of Various Papers. A. Rettori. *Paper* 34, 762-767 (Aug. 14, 1924). The more usual compositions are given for a large number of paper grades.—A. P.-C.

Why Paper Breaks in Printing. Peter J. Massey. *Paper* 34, 657-661 (July 31, 1924). A discussion of the causes of breaks on rotary printing presses.—A. P.-C.

The Colloid-Chemical Evaluation of Adhesive. H. Wislicenus and Rud. Lorenz. *Kolloid Zeit.* 34, 201 (1924) *Papierfabr.* 22, 337-338 (July 27, 1924). An abstract of the original article. It is concluded after a series of tests that the best method for evaluating the efficiency of adhesives is by quantitative colloid adsorption analysis. Suitable adsorbents are asbestos, purified kieselgur, carbon, and cellulose fibers. Viscosity measurements are not as accurate as adsorption tests for the estimation of the adhesive power of glue.—J. L. P.

Purification of Viscose and Other Pulp Solutions. N. V. Nederlandsche Kunstzijdefabriek. Ger. pat. 396,462. *Papierfabr.* 22, 297 (June 29, 1924). Viscose or other pulp solutions are purified by treatment with an organic liquid which is insoluble in the pulp solution but emulsifies readily. The impurities are removed with the dispersion medium by allowing the mixture to stand or by centrifuging.—J. L. P.

Corrosion Problems in the Pulp Plant. *Chem. & Met. Eng.* 31 (July 14, 1924); *Paper* 34, 617-618 (July 24, 1924). A discussion of the corrosion generally met with in the various pieces of equipment found in pulp (especially sulphite) mills, and of the materials best suited under the various conditions.—A. P.-C.

Making Leather Belts Endless. Louis W. Arny. *Paper Trade J.* 79, No. 10, 43-47 (Sept. 4, 1924). A detailed description of the manipulations involved in making belts endless on the pulleys. —A. P.-C.

Wastes from Pulp and Paper Mills Chemically Considered. H. W. Clark. *Trans. Am. Soc. Civil Eng.* 86 (1923); *Paper Trade J.* 79, No. 11, 43-44 (Sept. 11, 1924). Brief discussion of the nature of waste effluents from soda, sulphite and paper mills, and of their stream polluting properties.—A. P.-C.

What Causes Liming of Blowpits? *Paper* 34, No. 14, 605-611 (July 24, 1924). A discussion by various practical men of the possible causes of the liming of blowpits in sulphite mills. Cannot be satisfactorily abstracted.—A. P.-C.

Finnish Pulp and Paper Mills. Johannes Teicher. *Zellstoff U. Papier* 4, 189-192 (Aug., 1924). A description covering the practice in pulp manufacture as carried out in Finland.—J. L. P.

Treatment and Disposal of Strawboard Mill Wastes. H. B. Hommon. *Trans. Am. Soc. Civil Eng.* 86 (1923); *Paper Trade J.*

79, No. 12, 44-46 (Sept. 18, 1924). Experimental studies made on the disposal of strawboard mill wastes included treatment by sedimentation, filtration, and the activated sludge process. The wastes were sedimented for two to four hours. Chemical precipitants (lime, aluminum sulphate and iron sulphate) were added during certain periods of the tests. The settled wastes were filtered, screened cinders giving the best results. The activated-sludge process was tested in connection with further treatment of the waste, but the degree of added purification with aeration was insufficient to warrant further study. The disposal of the sludge remains a problem; when partially dried it can possibly be used as fertilizer.—A. P.-C.

Pollution of Streams by Pulp Mill Wastes. George C. Whipple. *Trans. Am. Soc. Civil Eng.* 86 (1923); *Paper Trade J.* 79, No. 12, 46-49 (Sept. 18, 1924). The peculiar characteristics of sulphite waste liquor are its sulphur content, acidity and high organic matter content. Some of the effects produced by discharging this waste into rivers are to make the streams unsightly by reason of deposits of pulp and fungi and algæ growths, the tendency to drive away fish, injuring the water for boiler feed purposes, while the sulpho-ligneous matter interferes with coagulation, reducing the efficiency and increasing the cost of filtration. Union policy regarding stream pollution is needed.—A. P.-C.

Abstracts of Pulp and Paper Literature. Graap. *Zellstoff U. Papier* 4, 127-130, 201-204 (June, Aug., 1924). Brief abstracts of the articles relating to pulp and paper in German journals. The period covered is January to June, 1924.—J. L. P.

Rubber Latex in Paper Making. Clarence J. West. *Paper Trade J.* 79, No. 7, 41-42 (Aug. 14, 1924). List of references on the subject, complete to July 1, 1924.—A. P.-C.

Forest Products Laboratories of Canada 1923. W. Kynoch. *Pulp & Paper* 22, 847, 857-858 (Aug. 14, 1924). A brief review of the main lines of investigation which are being carried out at present. —A. P.-C.

War Resources of the Paper Industry. Ronald G. Macdonald. *Paper* 34, 798-799 (Aug. 21, 1924). A brief outline of some of the ways in which the equipment or products of pulp or paper mills can be used in times of war.—A. P.-C.

Bentonite for Pitch Trouble. Sidney D. Wells. *Paper Trade J.* 79, No. 16, 47-48 (Oct. 16, 1924); *Paper* 35, 56-57 (Oct. 30, 1924). Closing up a white water system by practically complete reutilization may be attended with pitch trouble on the paper machine. To eliminate these troubles it may be necessary to introduce a small amount of fresh water with the corresponding elimination of white water from the mill. The amount of fresh water can be reduced by use of some material in the system which will prevent coagulation of the pitch. In the mill investigated addition of 10 lb. of bentonite per 1,000 lb. of stock in the beater, or per ton of pulp on the grinders, was sufficient to eliminate the trouble when use of fresh water was limited to the "foam killers" and the rotary screens.—A. P.-C.

Machine for Cutting Composition Shingles. Samuel M. Langston. U. S. pat. 1,487,661, 1,487,662, 1,487,663, Mar. 18, 1924. All three patents relate to mechanism for cutting out shingle strips of the type having slots or recesses extending inwardly from one longitudinal edge to leave spaced tabs which, in the finished roof, simulate individual shingles. The length of the finished shingle strips is made equal to the width of the sheet from which the strips are cut, and the sheet is delivered endwise through cutting mechanism which forms successive transverse rows of longitudinally extending slots and transverse cuts intersecting these slots to subdivide one shingle strip from the next. According to No. 1,487,661 three sides of the slots are first cut by means of one or more rotary cutting elements of suitable design. The fourth side is then cut by another element, which carries a pin which simultaneously passes through the severed piece and completely removes it from the sheet. The latter then passes through a suitable cut-off mechanism which divides it transversely into shingle strips. In the machine described in No. 1,487,662, the slots are cut in three operations, first cut together, the other, and finally the two sides joining the ends cut together. As in the previous patent, provision is made for positively removing the severed pieces from the remainder of the sheet to prevent their falling on the stack of severed shingle strips, where they could cause trouble. Each cutting element consists of two rotary members, the upper one constituting a platen and presenting one or more hardened steel surfaces against which may engage a knife or cutter on the lower member. The sheet of roofing is passed through these elements with mineral-coated sides up, and the knives or cutters are adjusted so as to pass through the body of the sheet, but not through the mineral coating. After the slots have been made, the sheet is divided into shingle strips as in the previous patent. The chief difference between No. 1,487,663 and the preceding patent seems to be that all four edges of the slots or apertures are formed by score cutters acting against hardened surfaces or platens, whereas in No. 1,487,662 the ends of the slots were formed by score cutters and the sides by shearing cutters. In all three patents the cutting elements are mounted on shafts in such a way that they can be easily adjusted to change the position of the cuts.—A. P.-C.

Machine for Coating Webs with Adhesive. A. M. Becker. U. S. pat. 1,493,061, May 6, 1924. The invention relates to various mechanical details in the construction with a view to avoiding trouble from lumps in the glue bath and for preventing the adhesive from accidentally reaching the ends of the distributing drum and doctor roll and their bearings. Other features are the ready and nice adjustment of the doctor roll, the means for directing the sheet of paper on to the adhesive-distributing drum, and the devices for lifting the coated sheet from the drum.—A. P.-C.

Machine for Surface Finishing Paper. A. M. Daniels. U. S. pat. 1,498,237, June 17, 1924. Two or more stacks of calenders are provided with sets of feed tapes which deliver the sheets of paper to the calenders, carry it through the first stack, deliver it from the first to the second stack, carry it through the second stack and so on through all the stacks. In order to prevent injury to the calender rolls by excessive thickness of the paper or by accidental feeding of two sheets together, a device is provided for automatically stopping the feed tapes when the thickness is excessive, before the thick sheet reaches the calender.—A. P.-C.

Machine for Making Marbled Paper. F. P. Reed assignor to C. C. Orcutt. U. S. pat. 1,498,200, June 17, 1924. The paper is first passed through a coating device, where either color or water is applied, according as to whether a colored or white background is desired. Excess of liquid is suitably removed, e.g., by means of a squeegee, and the remainder is uniformly distributed over the surface of the sheet, for instance, by gentle rubbing with a piece of felt. The sheet then passing under one or more color spattering devices, each consisting of a roll rotating partially immersed in a color tank and a brush rotating in the opposite direction which flicks off specks of color on the sheet. Beyond these are air-spraying mechanisms which move back and forth across the sheet and act to expand and spread the color particles until they touch one another, with a tendency to form wavy or sinuous colored lines. The sheet is then dried by passing over a heated arched metal plate on top of which is placed a wire screen to prevent scorching of the paper, means being provided for automatically lifting the paper out of contact with the screen if the machine is stopped. From there it travels around a heated roll and over a number of fans which drive away the excess moisture, and equalize and temper the sheet, which is finally reeled.—A. P.-C.

Brayton Goes to Itasca

S. C. Brayton, who has been with Consolidated Water Power and Paper Company since early in 1921 and since 1922 in charge of the technical work at Wisconsin Rapids, has accepted a similar position with Itasca Paper Company, Grand Rapids, Minn.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

Affiliated with

THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

Administrative and Selling Costs, Their Nature and Distribution*

By Andrew Stewart, C.A

It gives me great pleasure this morning to follow Mr. Higginbotham on this important subject. In this matter, we are, I think, sailing through uncharted seas.[1]

Treatment of the Subject

Before going too deeply into the subject, I should like to make my attitude quite clear with regard to certain matters upon which considerable difference of opinion exists.

The first is, that I have always felt that the cost of administration, and the cost of selling, representing as they do the two distinct, though closely allied functions of control and distribution, require to receive individual treatment by methods appropriate to the different circumstances. I think that the expression "Administrative Cost" evokes in the mind of each of us a very similar conception, and any variations can only be such as will have little effect on the problem. It conveys to us, I think, the cost of the service of administrating the business as a whole, and accordingly must cover both the production of the article and the distribution thereof, and the truest reflex of the position is not obtained by regarding administration as a function apart from producing or selling, but rather that it may be, and generally is, most intimately connected with both functions, and should be so apportioned, although any allocation should be made in such a way that the identity is not obscured.

Selling Costs and Costs of Production

The second point I wish to clear up is, that there are Cost Accountants today who regard the question of selling costs as being extraneous to the cost of production, and accordingly outside their sphere of accountability. That is, I submit, a view that we cannot accept, and if Cost Accountants are going to occupy their real place in industry, and give satisfactory service, it is their duty to render accurate and informative account of every phase of expense of the firm's activities in relation to the output. The well-worn phrase of the economists is of equal application to ourselves, namely, that "The act of production is incomplete until the goods are in the hands of the consumer." The straining after accurate and reliable manufacturing costs tends to dominate the situation to the danger of obscuring the importance of other matters, although I do say this, and say it most emphatically, that no methods of controlling or allocating sales expense can ever be really complete, unless built up against a background of accurate and suitably arranged manufacturing cost data. To not a few business men the importance of controlling distribution costs is greater even than the question of controlling manufacturing costs.

So much for these difficulties which, like most differences among cost accountants, are due largely to misunderstandings arising from the endeavor to express in non-technical language terms referring to a highly technical science. My economist friends will understand what I mean!

Importance of Selling Costs

The Council are to be commended for bringing the subject of selling costs prominently before you. The importance of the problem in individual cases is of course relative. With some of you—in your own personal experience—it may be a comparatively small matter, and call for little or no comment whatever, and this is particularly so in the case of many firms engaged in key industries. I am thinking of the coal trade and the iron and steel trade. On the other hand, there are firms to whom the question of selling expense is of great moment, involving considerable anxiety as to how to treat the matter in the best possible way in order to provide information for effective control and for guidance in price-fixing. Matters may also be complicated by the fact that not a few firms today sell all or part of their output through central selling organizations, or under arrangements of price maintenance involving complicated schemes of rebates and trade discounts.

Whatever be your experience, however, I am sure you will agree that the question of selling costs has received but scanty attention. It is the "Cinderella" of cost accounting.

Distribution Costs

The high cost of distribution is an outstanding feature of modern commercial conditions, and is a problem which has grown along with the development of the commerce of this country. We have been so intent on the manufacturing aspect of industry that selling and distribution costs generally have been relegated to the background, but are now so important that it is no longer possible to ignore them. We are a people who must live principally by exports, and if this country is going to retain her position in world trade, she must develop to an increasing extent her markets beyond the seas. This means that the problem of distribution costs is

*From the Cost Accountant.

[1] The speech of W. H. Higginbotham, F.C.W.A., on this subject was printed in the Cost Section in the issue of the Paper Trade Journal of June 11, 1925.

going to be one of still greater importance, and the time is now more than due when the matter should receive our most careful consideration and research.

That each Cost Accountant must grapple with his own peculiar difficulties there can be no doubt, and it is not a matter upon which generalization is either safe or helpful. The complexity of the individual problem will be more or less controlled by the nature of the output sold as regards variety of type, value, the manner and area of distribution, and the character of the selling organization. The variety of type product is the most important factor. The simplest case would seem to be that of a concern manufacturing a single line of goods, and even here the problem presents difficulties which are influenced by the whole consideration of the question, and by reason of the fact, for example, that the reward to immediate selling effort may be, and very often is, postponed and the correlation of cause and effect is generally hard to trace.

Allocation of Sales Costs

The problem becomes much more difficult and involved when we come to the highly complex case not uncommon to this country, of a firm whose output consists of literally thousands of different items, the distribution of which may be worldwide. The present general practice in the matter of allocating Sales Costs is to segregate these over a period and express the total as a percentage on the total sales for the same period. Far from condemning this method, I regard it as a progressive step. Though perhaps feeble, it is nevertheless some recognition that special treatment of Selling Costs is necessary. A little reflection, however, shows us that this method takes little cognizance of the actual facts of the case, and yields no material for the control of Sales expense. There are, as we know, orders which come in more or less automatically from good friends, orders, for which the actual counting-house expense is relatively small, and there are other orders which cost us so much to obtain that we should be better off without them.

Control of Salesmanship

It is said that the onlooker sees most of the game, and it is surprising to see executives demanding every means of control of manufacturing expense, which is more or less under their direct observation, and at the same time to know that the same men are content to maintain expensive selling forces in the field, without any effective control, and it is not unlikely in many cases that the savings through works efficiency and low cost are lost in selling.

There are several aspects of salesmanship which should be considered from the point of view of control, and the two most important are (1) the volume and nature of the sales obtained, and (2) the cost of obtaining these sales, Methods of remunerating salesmen and agents cause maximum sales to be their principal object, and the danger will always exist where selling expense is uncontrolled, that a considerable portion of the sales figure is obtained at exorbitant cost.

Recognized Selling Cost

It might be helpful at this stage to consider what is recognized as selling cost, and the undernoted is a representative list. In individual cases the details will vary, but the problem is not vitally affected thereby:

1—Head Office—(a) Salaries and Expense of Sales Order Department; (b) Salaries and Expense of Invoicing Department; (c) Proportion of Administrative Expense.

2—Branches, Agencies and Travellers—(a) Salaries and Commission; (b) Office Expenses; (c) Travelling Expenses.

3—Publicity Expense—Advertising, catalogues, etc.

What a System Must Provide

Whatever system be devised for dealing with Selling Costs it is fairly obvious that it must provide for (1) The means of control of the selling organization. (2) A method of ensuring that the selling price is correctly fixed in relation to the cost not only of manufacturing but including distribution also.

The current Selling Costs can scarcely of themselves be of immediate value for price fixing purposes as the fluctuations would be such that their use along with current manufacturing costs would be entirely impracticable—nor would they be of particular value for the purposes of control unless it is possible to effect comparison with predetermined standards.

It is along the line of fixing standards not only of cost of selling but also of estimating the volume of sales that the most sound and practicable attempts at the solution of the problem of selling cost allocation and control have been made.

Budgeting Sales

These methods depend for their success on the accurate budgeting of sales. The figure when determined is usually regarded as representing a total number of points for the year. This total is allocated in monthly quotas to districts and the district figures subdivided for individual salesmen. The quotas are arrived at from past records of the business done and the present or prospective trade conditions in the field. Where possible it is highly desirable that the budget should be detailed to show separately the individual lines and, or grades of the product. This information is essential because of the differential margins of profit on different grades of goods.

The budgeting of sales is not uncommon, as many large specialty manufacturers are in the habit of figuring out estimates for their manufacturing and distributing programs.

Standards of Sales Cost

The fixing of standards of Sales Cost is a more difficult matter. The classification and methods employed will depend to a large extent on the variety of type sold and the nature of the selling organization.

In any case, if suitable data does not exist then years of groundwork may be necessary before reliable standards can be evolved. Keeping in mind the dual purposes of price fixing and control, it would seem that the most useful information could be derived by the classification of selling expense by lines of product and, if possible, by lines of product in each district.

To do this a careful study of the component factors of selling costs will be necessary.

Divisions of Selling Costs

Not unlike factory costs the cost of selling falls into two main divisions: (1) Expense of a general nature which resembles "indirect charges"; (2) Expense capable of specific application of types of products which resembles "direct cost."

Constituting the former (the indirect cost) are the proportion of Administrative Charges applicable to selling and the general costs of sales orders and invoicing departments. Constituting the latter are Salesmen's Salaries and Expenses and such other advertising costs as can be directly allocated to products. The indirect Selling Expenses would, of course, be pro-rated to the Direct Expense.

Allocation of Direct Expense

The allocation of the items of direct expense to type of products will demand careful investigation and may be a big task, but if standards are to be fixed this must be accomplished.

It will be necessary for each Salesman to estimate and report the time occupied on each type of product whether sales are forthcoming or not. For the purpose of control calls should be analyzed so that the report will show the number and cost of calls of a promotive character, i.e., calls developing business. Where of course each salesman is selling only one style of product the problem will be rendered much simpler as a single unit basis will be available.

Advertising Costs

With reference to the cost of advertising, this will be both direct and indirect in its incidence. "Direct" inasmuch as the expense may concern a particular product and "indirect" where the adver-

tising is of a general nature. The latter should be pro-rated over the total sales or dealt with specially if a big campaign.

Adjustment

The selling expense now being allocated to products, the figures should be adjusted to a yearly basis and therefrom standard rates should be evolved in relation to the budgeted figures of sales for each type.

Thus having obtained standards for the cost of selling each type we have now information which is both useful from the aspect of sales control and for price-fixing purposes.

It enables the manufacturer to observe his sales from the positive aspect of volume of sales by comparing the actual against the quota and from the negative aspect of the cost of securing these sales by comparing the current cost of selling against the standard.

Standards for Comparison

Where it is not possible to arrive at standards of Selling Expense for each type of product it may still be possible to arrive at standards for the various heads of cost, and considerable ingenuity can be applied in securing standards for effective comparison, e.g., cost per call and cost of office expenses per item.

In further development of the standard idea, some manufacturers evolve what they regard as a standard cost of production, and debit up to branches, and through branches to salesmen, the standard cost of the product, at the same time fixing a price which will enable the branch to sell at a reasonable profit, and in this way the manufacturer is able to observe the efficiency or otherwise of the branch on a basis of profit and loss. It should be observed, however, that the standard cost decided upon must, of necessity, be based on the budgeted figure of sales. On the budgeted figure of sales the whole success of this method depends.

In any system of sales control the budget may require to be adjusted by reasons of seasonal trade. In the same way it is necessary to draw up some scheme in order to provide for the varying conditions and circumstances under which Salesmen operate as it would be absurd to judge the efficiency of all travellers on the same basis.

The sales quota method properly applied is also helpful in fixing fair bases of remuneration and is sufficiently elastic to meet the varying conditions in the field and to enable difficult ground to be worked while still giving the Salesmen sufficient encouragement.

Comparing Methods of Selling

A further useful purpose is the comparison of different method of selling with a view to the selection of the most efficient, e.g., whether by branch office, agents, travellers, central selling organizations, etc.

Administrative Costs

To deal now with the cost of administration. Actual details are not of great moment, but briefly stated administrative costs should include: (1) Salaries of Directors, Secretary, Accountant, Cost Department, and other office salaries; (2) Office Rent, Rates, Lighting, Stationery and other expenses; (3) Ordinary Legal and Accounting Services.

Allocation

As already indicated, the cost of administration must, in the first instance be apportioned between Manufacturing Costs and Selling Costs. In making this allocation considerable discretion is required, and I have always found it most helpful to get each member of the staff to prepare an analysis of his time, and on this basis pro rata, such other expenses as cannot be specifically earmarked as being entirely connected with either production or distribution. This will form a basis for making the necessary allocation between Manufacturing and Selling Costs, and will also afford suitable data in considering the further distribution to departments or processes. The problem is generally not one of any magnitude, and an inquiry into the circumstances of each case will scarcely fail to reveal a suitable basis for allocation. It often happens that there are departments which bear no comparison to each other, either from the point of view of unit manufactured, or of wages on materials cost. For example, coal mines is one department and iron and steel works is another department, and of course, there is no common basis. Under such circumstances arbitrary allocation must be made between such departments and the further subdivision carried out on the basis of some common unit factor. It is necessary, however, not to lose the identity of Administrative Costs, and in order to show the real Factory Costs it should be, wherever possible, treated separately and regarded as a cost additional to Factory and Selling Costs. The value of this will also appear when considering price cutting, as administrative cost comes under the heading of "Standing Charges" and is seldom subject to any real fluctuations, so that in times of stress it might be found worth while to accept orders which, though they do not cover the total manufacturing cost, do make some contribution towards standing charges. I do not consider it wise to allocate administrative cost as a percentage on direct labor cost without a proper inquiry into the circumstances, as the labor factor, whilst generally the most convenient, does not always truly represent the work factor of the department, and consequently the true amount of supervision required.

Wise Exercise of Judgment Necessary

Under certain circumstances, it might be possible to analyze Administrative Cost as representing the several functions such as the purchase of material, the administration of wages, and so on, to apply the cost of these functions to the production factors which they represent, namely, labor and material, and so express these in relation to the labor and material values passing through each department. Each head of expense must be considered individually in relation to each department or process; although generally speaking the allocation of Administrative Costs is more or less a matter calling for wise exercise of judgment in each case, and arbitrary allocations may prove, in the end, to be the most accurate.

A Handbook on Superheated Steam

SUPERHEAT ENGINEERING DATA—A Handbook on the Generation and Use of Superheated Steam. Sixth Edition Revised. (Superceding Data Book for Engineers.) The Superheater Company, New York and Chicago, 1925. Bound in Keratol, 4½ x 7 in., 208 pages, 85 illustrations and diagrams, 69 tables. Price $1.00.

This handbook contains condensed data for steam power plant engineers and operators. A feature of the book is the index consisting of 16 pages, assuring ready reference. Superheated steam, its advantages over saturated steam, and the proper design and performance of superheaters, are briefly discussed. It illustrates superheater arrangements in practically all stationary, marine and locomotive type boilers commonly made in America. Waste heat, portable and separately fired superheaters are also shown. Brief comparative data is given as to sizes, tube sizes, arrangement of tubes, etc., for the stationary water tube boilers illustrated. The steam tables cover pressures from below atmospheric to 600 lb., absolute, and include properties of superheated steam from 50 to 300 deg. F. superheat.

The section on piping includes information for figuring piping for handling water, saturated and superheated steam, and velocity and pressure drop of water and steam flowing through piping. In this section is included also the proposed American standards for high pressures. Superheat Engineering Data also contains engineering data on coal and oil fired boilers, which include tables of heat values for gaseous, liquid and solid fuels. Other miscellaneous data include complete conversion tables and data on bolts and screw threads, with the recent work of the American Engineering Standards Committee, and the National Screw Thread Commission. There are also many miscellaneous tables frequently used by steam engineers.

Management's Attack on Waste*

By Gerard Swope, President, General Electric Co.

Eliminate industrial waste! Minimize industrial controversy! We all agree upon the desirability of realizing these two ideals, but do any of us know how we can do so? Employers, as they look backward, recognize that the responsibility has been theirs and is largely theirs today, and if we look back I am sure most of us will agree that we wish it had been better done. It is largely because management did not see this problem clearly that many of the difficulties in industrial organization have since arisen.

It seems to me that the question is always this: We agree with the principles, but what are we going to do about the problem? How are we going to go about it? How are we going to apply the principles in industry?

Of course, there will never come a time when industrial waste will be entirely eliminated. This would be the counsel of perfection and is impossible of attainment. There is no question in my mind that industrial waste can be largely reduced, and that as management becomes more alive to the problem, its solution will be more nearly attained. One of the great efforts of management today is to see that this problem is recognized, not only by the supervisory organization but also by the employees. If the understanding, sympathy, and co-operation of each member of an organization can be secured, there is much greater hope for a nearer attainment of the goal—the elimination of industrial waste.

We have a great advantage in America in having a large population becoming constantly more homogeneous, speaking one language, existing under the same political institutions, having common ideals and a high standard of living. This makes it possible to market a standard product, bringing in its train the advantages of quantity production, in which field the manufacturing companies throughout the United States have taken the lead.

The problem still before us is to reduce selling prices so as constantly to reach a larger and larger circle of buyers, and this means not only the advancement in manufacturing processes but also reduction in cost so as to enable us to distribute this product at a lower selling price. Reductions in cost do not necessarily mean increased profits to the manufacturer; they may to a certain extent, but lower costs must sooner or later be reflected in lower selling prices to the public. This, as we learn from experience, is a fact, and a fact which, from the standpoint of the manufacturer, is very desirable, since the market is thereby enlarged, with the possibility of still further reducing the manufacturing and distributing costs.

Nor do lower selling prices and lower costs mean lower earnings for the workmen. It is quite consistent with lower costs to have increased earnings on the part of the workmen. This has been demonstrated in the electrical industry as well as in a number of other industries. As an example, the incandescent lamp is today selling at lower than pre-war prices—and there are not many articles in common use about which this can be said—while at the same time the labor content in the lamp itself has been reduced, and the earnings of the people engaged in the manufacture of incandescent lamps have increased upwards of 100 per cent.

Value of the Suggestion System

A most useful method not only of eliminating waste and introducing better methods, but also for improving the morale of the organization, is the suggestion system—inviting and encouraging the workman at the bench to make suggestions for improved methods. In using this system it is essential to see that each suggestion is carefully considered; that the man who made the suggestion knows that it has had mature and fair consideration; that, if adopted, the contribution is recognized by the company publicly and in a substantial way, commensurate with the contribution made; and that the man's associates are informed of his success.

The effect upon the organization, of these suggestions by workmen, is of even greater importance than the reduction in cost to the company and the monetary rewards to the men. The men themselves are stimulated, and the esprit de corps of the organization as a whole is strengthened through the recognition that the workman is a live, integral part of the business, able to contribute to a greater extent in its upbuilding. This gives the workmen a greater interest and keener sense of enjoyment from his work, as he feels that he has made a constructive contribution, and that the recognition that has come to him not only is appreciated by him, but also has made him more respected by his associates.

Finding the Exceptional Man

This often leads to finding talent and ability for bigger jobs. This is one of the most difficult and elusive parts of the problem of management—finding the exceptional man. It is a very widespread problem, and one which is especially pressing in any large industrial organization. The problem of knowing and rating the men, and giving them opportunities to do bigger jobs, is essentially a job for management.

But probably the most tragic waste of all in industry is unemployment where men ready and willing and able to work, whom society really needs, are still unable to secure it. The most severe test of any social system is the consideration it gives to the human being, and our present system must find a solution of this great human problem.

Industry also is much more cordial today than ever before toward the problem involved in minimizing industrial controversy. It is recognized that if the sympathy and understanding of the workmen is gained, the spirit of an organization will be much better, work will go more smoothly, the material results accomplished will be greater, and the human satisfaction to all concerned will be vastly increased.

As business is organized today, most companies have a large number of shareholders, to whom they report periodically the results of operations, and there is every reason why the workmen should be kept informed of the development of the business so that they also can see whither it is tending. This has been accomplished in many instances with marked success by having the representatives of the men meet with the management for the purpose of discussing various problems as they arise, so that the men will have a general understanding of the business of the company. One of the gratifying results have been the increased satisfaction on the part of the workmen, which has been one of the causes of the largely increased turnover of labor.

There is still much to be done, and the most hopeful aspect of the problem is that management and men are approaching it more open-mindedly.

* From Management and Administration.

Increase in Norwegian Crown Disturbs Pulp

[From our regular correspondent.]

Washington, D. C., June 24, 1925.—The chemical pulp market is reported to be greatly disturbed as a result of the increase in value of the Norwegian crown according to a report to the Paper Division of the Department of Commerce from the American Consul at Oslo. The paper market is also exhibiting some uncertainty following this development. Reports state that news print in rolls has been practically sold out for the current year, in other grades, where the mills are still open for orders the demand is brisk and the prices firm. Exceedingly small quantities of mechanical pulp are available for further sales this year, and the market is, therefore, very quiet.

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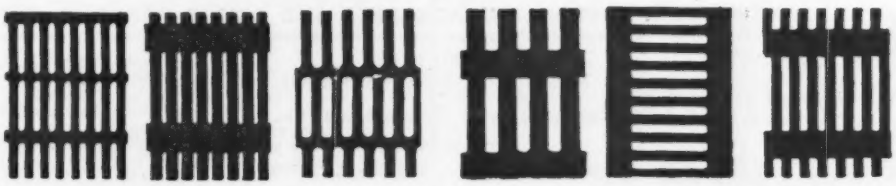

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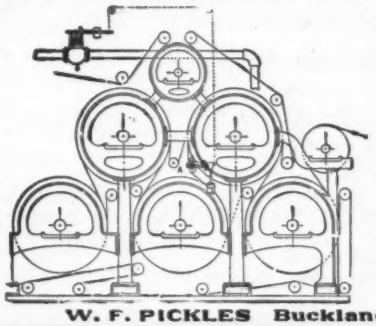

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Imports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING JUNE 20, 1925

SUMMARY

News print .....1,936 rolls
Wrapping paper .....23 bdls., 41 rolls
Printing paper .....197 cs., 46 rolls
Paper hangings .....66 bls., 3 cs.
Wall paper .....3 bls.
Cigarette paper .....127 cs.
Baryta coated paper.....25 cs.
Colored paper .....77 cs.
Writing paper .....28 cs.
Drawing paper .....33 cs., 29 rolls
Filter paper .....10 cs.
Tissue paper .....24 cs.
Transfer paper .....9 cs.
Note paper and envelopes.....2 cs.
Straw paper .....70 bls.
Fancy paper .....16 cs.
Decalcomania paper .....14 cs.
Painted paper .....5 cs.
Pergament paper .....10 cs.
Flintstone paper .....105 bls.
Gold coated paper .....2 cs.
Copy paper .....30 cs.
Envelopes .....3 cs.
Paper boxes .....11 cs.
Paper tubes .....6 cs.
Miscellaneous paper .....188 cs.

CIGARETTE PAPER

P. J. Schweitzer, Pr. Harrison, Marseilles, 121 cs.
Standard Products Corp., Vincent, Havre, 6 cs.

WALL PAPER

F. J. Emmerich & Co., Deutschland, Hamburg, 3 bls.

PAPER HANGINGS

W. H. S. Lloyd & Co., Laconia, Liverpool, 58 bls.
W. H. S. Lloyd & Co., Minnewaska, London, 8 bls.
W. H. S. Lloyd & Co., by same, 3 cs.

NEWS PRINT

Parsons & Whittemore, Inc., Bremen, Bremen, 566 rolls.
Parsons & Whittemore, Inc., Kolsnaren, Helsingfors, 792 rolls.
Janeway & Carpender, by same, 69 rolls.
Maurice O'Meara Co., by same, 110 rolls.
Irving Bank Columbia Trust Co., Deutschland, Hamburg 399 rolls.

PRINTING PAPER

E. Dietzgen & Co., Deutschland, Hamburg, 25 cs.
Keuffel & Esser, by same, 46 rolls.
L. Schulman, Kolsnaren, Helsingfors, 29 cs.
Maurice O'Meara Co., by same, 118 cs.
C. B. Harris, by same, 25 cs.

WRAPPING PAPER

Blauvelt Wiley Paper Mfg. Co., Cameronia, Glasgow, 23 bdls.
Arkell Safty Bag Co., Deutschland, Hamburg, 41 rolls.

TISSUE PAPER

Meadows Wye & Co., Laconia, Liverpool, 12 cs.
Iwai & Co., Shunko Maru, Kobe, 12 cs.

DRAWING PAPER

E. Dietzgen & Co., Minnewaska, London, 4 cs.
E. Dietzgen & Co., Eglantine, Rotterdam, 19 cs.
Keuffel & Esser, Deutschland, Hamburg, 10 cs.
Keuffel & Esser, by same, 29 rolls.

FILTER PAPER

H. Reeve Angel & Co., Inc., Minnewaska, London, 6 cs.
Taijo Trading Co., Shunko Maru, Yokohama, 4 cs.

COLORED PAPER

E. Dietzgen & Co., Deutschland, Hamburg, 74 cs.
Phoenix Shipping Co., Bremen, Bremen, 3 cs.

STRAW PAPER

American Express Co., Deutschland, Hamburg, 70 bls.

FANCY PAPER

Whiting & Patterson Co., Inc., Olympic, London, 15 cs.
A. Lorsch & Co., France, Havre, 1 cs.

DECALCOMANIA PAPER

L. A. Consmiller, Bremen, Bremen, 14 cs.

TRANSFER PAPER

F. L. Kramer, Bremen, Bremen, 9 cs.

PAINTED PAPER

International Forwarding Co., France, Havre, 5 cs.

PERGAMENT PAPER

L. A. Consmiller, Bremen, Bremen, 10 cs.

FLINTSTONE PAPER

Impex Paper Co., Bremen, Bremen, 105 bls.

BARYTA COATED PAPER

Globe Shipping Co., Bremen, Bremen, 25 cs.

GOLD COATED PAPER

C. B. Richard & Co., Bremen, Bremen, 2 cs.

COPY PAPER

F. C. Strype, Lisbon Maru, Kobe, 30 cs.

NOTE PAPER AND ENVELOPES

A. Goodman & Co., Laconia, Liverpool, 2 cs.

ENVELOPES

H. Reeve Angel & Co., Inc., Minnewaska, London, 3 cs.

WRITING PAPER

Globe Shipping Co., Bremen, Bremen, 28 cs.

PAPER BOXES

Gallagher & Ascher, Deutschland, Hamburg, 11 cs.

PAPER TUBES

H. de Maguinn, France, Havre, 6 cs.

MISCELLANEOUS PAPER

Perry Ryer & Co., Cameronia, Glasgow, 164 cs.
F. L. Kramer, Minnewaska, London, 2 cs.
Japen Paper Co., France, Havre, 1 cs.
Guibout freres, by same, 19 cs.
P. R. Dreyer, by same, 2 cs.

RAGS, BAGGING, ETC.

Brown Bros. & Co., Cameronia, Glasgow, 81 bls. paper stock.
Brown Bros. & Co., Deutschland, Hamburg, 452 bls. rags.
Bankers Trust Co., by same, 67 bls. rags.
E. J. Keller Co., Inc., by same, 236 bls. rags.
National City Bank, by same, 36 bls. rags.
Anglo South American Trust Co., by same, 29 bls. rags.
A. W. Fenton, Inc., Hog Island, Constantinople, 376 bls. rags.
International Accep. Bank, by same, 225 bls. rags.
Darmstadt Scott & Co., Conehatta, Manchester, 25 bls. picker waste.
Guaranty Trust Co., Handicap, Genoa, 109 bls. paper stock.
International Accep. Bank, Handicap, Naples, 126 bls. shopperies.
E. J. Keller Co., Inc., by same, 276 bls. rags.
Philadelphia National Bank, Shunko Maru, Kobe, 20 bls. rags.
Fidelity Intl. Trust Co., Bremen, Bremen, 139 bls. rags.
Brown Bros. & Co., by same, 238 bls. rags.
A. W. Fenton, Inc., by same, 267 bls. rags.
State Bank, Archimedes, Manchester, 37 bls. rags.
Pearl Waste Manfg. Co., by same, 4 bls. rags.
Ayres, W. C. Jones, by same, 14 bls. cotton waste.
Anglo South American Trust Co., by same, 147 bls. bagging.
National City Bank, Eglantine, Rotterdam, 144 bls. rags.
E. J. Keller Co., Inc., by same, 128 bls. rags.
Fidelity Intl. Trust Co., Galtymore, Leith, 58 bls. bagging.
New York Trust Co., by same, 72 bls. rags.
National City Bank, by same, 82 bls. rags.
W. Schall & Co., Galtymore, Dundee, 90 bls. paper stock.
E. Butterworth & Co., Inc., Galileo, Hull, 293 bls. rags.
E. Butterworth & Co., Inc., by same, 224 bls. bagging.
Castle & Overton, Inc., Vincent, Havre, 10 bls. rags.
E. J. Keller Co., Inc., by same, 144 bls. rags.
Darmstadt Scott & Co., by same, 111 bls. rags.
Katzenstein & Keene, Inc., by same, 164 bls. rags.
A. W. Fenton, Inc., Vincent, Havre, 414 bls. rags.
P. Berlowitz, by same, 62 bls. rags.
Atlas Waste Manfg. Co., by same, 208 bls. cotton waste.
Castle & Overton, Inc., Vincent, Dunkirk, 131 bls. rags.
E. J. Keller Co., Inc., W. A. Luckenbach, Kobe, 631 bls. rags.
E. J. Keller Co., Inc., Hesperides, Buenos Aires, 60 bls. rags.

OLD ROPE

Brown Bros. & Co., Galileo, Hull, 314 coils.
Brown Bros. & Co., by same, 26 bls.
Irving Bank Columbia Trust Co., Handicap, Genoa, 400 coils.
W. H. Cummings & Son, Vincent, Havre, 56 coils.

MANILA ROPE

Ellermans' Wilson Line, Minnewaska, London, 26 coils.
Ellermans' Wilson Line, Olympic, London, 10 coils.
United Fibre Co., Pr. Harrison, Manila, 275 coils.

HEMP ROPE

United Fibre Co., Pr. Harrison, Manila, 14 bdls.

WOOD PULP

Lagerloef Trading Co., Kolsnaren, Helsingfors, 960 bls. dry white pulp, 152 tons.
Bulkley, Dunton & Co., Topdalsfjord, Gefle, 1875 bls. wood pulp.
Bulkley, Dunton & Co., Irma Kimme, Stugsund, 2,500 bls. wood pulp.
Ira L. Beebe & Co., Inc., Bremen, Bremen, 1,845 bls. wood pulp.
Buck Kaier & Co., by same, 800 bls. wood pulp.

WOOD PULP BOARDS

Lagerloef Trading Co., Kolsnaren, Helsingfors, 623 rolls, 194 tons.

NEW ORLEANS IMPORTS

WEEK ENDING JUNE 20, 1925

Castle & Overton, Inc., West Erral, France, 243 bls. rags.

LOS ANGELES IMPORTS

WEEK ENDING JUNE 20, 1925

Frazer & Co., Shunko Maru, Kobe, 488 bls. rags.
Anglo London & Paris Bank, by same, 200 bls. rags.
Du Val Moore & Co., by same, 225 bls. rags.
Wheeler Elder Intl. Bank, by same, 23 bls. rags.

(*Continued on page 60*)

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EMPIRE ROSIN **QUALITY SIZE**

EMPIRE SIZE & CHEMICAL CORP.
ALBANY, NEW YORK

Imports of Paper and Paper Stock

(*Continued from page* 58)

SAN PEDRO IMPORTS

WEEK ENDING JUNE 20, 1925

Frazer & Co., Shunko Maru, Yokohama, 856 bls. rags.

SAN FRANCISCO IMPORTS

WEEK ENDING JUNE 20, 1925

C. Herlery & Co., Lisbon Maru, Kobe, 20 bls. rags.

PHILADELPHIA IMPORTS

WEEK ENDING JUNE 20, 1925

H. Reeve Angel & Co., Inc., Novian, London, 6 cs. printing paper.
Paper House of Penna., Hemlen, Bremen, 31 cs. printing paper.
Philadelphia National Bank, Nevisian, Antwerp, 34 cs. printing paper.
Corn Exchange Bank, Nevisian, Hamburg, 67 cs. surface coated paper.
E. H. Bailey & Co., Galtymore, Leith, 62 cs. paper.
New York Trust Co., by same, 188 bls. rags.
J. A. Steer & Co., by same, 43 bls. rags.
International Accep. Bank, by same, 58 bls. rags.
Castle & Overton, Inc., Eglantine, Rotterdam, 126 bls. rags.
Philadelphia National Bank, by same, 77 bls. rags.
Belgian Bank, by same, 249 bls. rags.
E. J. Keller Co., Inc., by same, 1,005 bls. rags.
Penn Rag & Metal Co., Carenco, Oran, 185 bls. rags
National Bank of Commerce, Handicap, Leghorn, 89 bls. rags.
Castle & Overton, Inc., Winona, Leghorn, 187 bls. rags.
D. I. Murphy, by same, 252 bls. rags.
Rohner & Gehrig Co., Nevisian, Antwerp, 497 bls. rags.
Castle & Overton, Inc., by same, 101 bls. rags.
Belgian Bank, by same, 181 bls. rags.
C. Braendli, by same, 4 bls. rags.
Equitable Trust Co., Hemeln, Bremen, 65 bls. rags.
Belgian Bank, by same, 38 bls. rags.
Brown Bros. & Co., by same, 420 bls. rags.
Bank of N. Y., by same, 103 bls. rags.
Union National Bank, by same, 388 bls. rags.
E. J. Keller Co., Inc., by same, 140 bls. rags.
Philadelphia National Bank, by same, 267 bls. rags.
The Stone Bros. Co., Inc., Vincent, Havre, 153 bls. rags.
R. Blank, by same, 97 bls. rags.
Castle & Overton, Inc., by same, 73 bls. rags.
Salomon Bros. & Co., by same, 433 bls. rags.
Penn Rag & Metal Co., by same, 308 bls. rags.
E. J. Keller Co., Inc., by same, 319 bls. rags.
E. J. Keller Co., Inc., Vincent, Dunkirk, 211 bls. rags.
J. Chalfin & Co., by same, 107 bls. rags.
J. M. Hagy Waste Works, by same, 108 bls. rags.
Castle & Overton, Inc., by same, 535 bls. rags.
Salomon Bros. & Co., by same, 38 bls. rags.
O'Neill Bros., by same, 44 bls. cotton waste.
E. J. Keller Co., Inc., W. A. Luckenbach, Kobe, 700 bls. rags.
E. J. Keller Co., Inc., Montpelier, Hamburg, 487 bls. rags.
E. J. Keller Co., Inc., Masaniello, Barcelona, 78 bls. rags.
E. J. Keller Co., Inc., M. Merchant, Manchester, 180 bls. bagging.
Castle & Overton, Inc., West Arrow, Antwerp, 85 bls. rags.
Castle & Overton, Rexmore, England, 104 bls rags.
Castle & Overton, Inc., Beemsterdyke, Rotterdam, 91 bls. rags.
Castle & Overton Eastern Dawn, Belgium, 155 bls. rags.
E. J. Keller Co., Inc., Arkansas, Copenhagen, 75 coils old rope.
E. J. Keller Co., Inc., Arkansas, Aarhus, 170 coils old rope.
The Borregaard Co., Inc., Arkansas, Copenhagen, 450 bls. sulphate pulp.

BOSTON IMPORTS

WEEK ENDING JUNE 20, 1925

G. F. Malcolm, Scythia, Liverpool, 26 cs. tissue paper.
G. F. Malcolm, Devonian, Manchester, 14 cs. tissue paper.
F. A. Chase & Co., West Inskip, Antwerp, 216 rolls building paper.
Providence Paper Co., by same, 20 bls. wrapping paper.
Providence Paper Co., by same, 15 rolls wrapping paper.
D. F. Munroe & Co., by same, 15 bls. wrapping paper.
D. F. Munroe & Co., by same, 25 rolls wrapping paper.
J. B. Moors & Co., Scythia, Liverpool, 624 bags hide cuttings.
E. Butterworth & Co., Inc., West Inskip, Antwerp, 39 bls. rags.
E. J. Keller Co., Inc., by same, Rotterdam, 58 bls. rags.
G. M. Graves Co., by same, 19 bls. rags.
J. B. Moors & Co., Devonian, Manchester, 289 bags hide cuttings.
State St. Trust Co., by same, 23 bls. rags.
J. T. Lodge, by same, 44 bls. rags.
Baring Bros. & Co., Ltd., by same, 141 bls. rags.
National Shawmut Bank, by same, 18 bls. rags.
Train Smith & Co., by same, 188 bags hide cuttings.
Draper & Co., by same, 7 bls. rags.
Appleton & Co., by same, 76 bls. rags.
Baring Bros. & Co., Ltd., Rexmore, Glasgow, 80 bls. rags.
American Express Co., by same, 19 bls. rags.
G. M. Graves Co., by same, 103 bls. rags.
Fidelity Intl. Trust Co., by same, 99 bls. rags.
Mechanics' Metals National Bank, by same, 21 bls. rags.
J. T. Lodge, Rexmore, Liverpool, 33 bls. rags.
J. B. Moors & Co., by same, 26 bls. rags.
Linen Thread Co., by same, 60 bls. flax waste.
Harry Muller, Gov. Dingley, St. Johns, 18 bdls. tarred rope.
National City Bank, Pr. Harrison, Manila, 424 pgs. hemp rope.
F. Leyland & Co., Devonian, Manchester, 33 bls. old rope.
International Purchasing Co., Northland, Yarmouth, 49 bls. old rope.
Brown Bros. & Co., Devonian, Manchester, 55 coils old rope.
1st National Bank of Boston, Liberty Glo, B. Aires, 1,251 bags casein.
Morey & Co., Inc., Norfolk Maru, Fowey, 52 tons China clay.
L. A. Salomon & Bros., by same, 26 tons same.
J. Richardson, by same, 564 tons same.
Atlantic National Bank, by same, 1,115 tons same.
Paper Makers Importing Co., by same, 266 tons same.
Lagerloef Trading Co., Casper, Kotka, 7 bls. wood pulp boards.
Bulkley, Dunton & Co., Casper, Sundsvall, 750 bls. chemical pulp.
National City Bank, by same, 625 bls. wood pulp.
Castle & Overton, Inc., ————, Germany, 420 bls. wood pulp.
Castle & Overton, Inc., ————, Sweden, 280 bls. wood pulp.

BALTIMORE IMPORTS

WEEK ENDING JUNE 20, 1925

National City Bank, Westpool, Hamburg, 2,400 bls. wood pulp.
Nilsen Lyon & Co., Nordhval, Stugsund, 1,625 bls. wood pulp.
Bulkley, Dunton & Co., Topdalsfjord, Gefle, 1,875 bls. wood pulp.
Bulkley, Dunton & Co., Nordhval, Stugsund, 7,850 bls. wood pulp.
Bulkley, Dunton & Co., Arkansas, Oslo, 2,248 bls. wood pulp.
Price & Pierce, Ltd., by same, Wallvik, 6,540 bls. wood pulp.
National City Bank, by same, Greaker, 3,875 bls. wood pulp.
Scandinavian Pulp Agency, Inc., by same, 250 bls. wood pulp.
J. Anderson & Co., by same, Sweden, 2,700 bls. wood pulp.
J. Anderson & Co., by same, Sweden, 2,700 bls. wood pulp.
Price & Pierce, Ltd., by same, Ohrviken, 3,900 bls. wood pulp.
Johaneson, Wales & Sparre, Inc., by same, Gothenburg, 3,705 bls. sulphate pulp.
Johaneson, Wales & Sparre, Inc., by same, Gothenburg, 875 bls. sulphite pulp.
E. J. Keller Co., Inc., Blommersdyk, Rotterdam, 480 bls. wood pulp.
National City Bank, Hameln, Bremen, 1,200 bls. wood pulp.
Ira L. Beebe & Co., Inc., by same, 1,400 bls. wood pulp.
Castle & Overton, Inc., Montpelier, Hamburg, 1,375 bls. wood pulp.
Brown Bros. & Co., Blommersdyk, Rotterdam, 25 coils old rope.
Brown Bros. & Co., by same, 18 bls. old rope.
E. J. Keller Co., Inc., Sudbury, Hamburg, 89 bls. rag pulp.

PORTLAND IMPORTS

WEEK ENDING JUNE 20, 1925

Bulkley, Dunton & Co., Miles, Iggesund, 2,500 bls. wood pulp.

R. F. Raymond Starts Paper Business

LEWISTON, Me., June 23, 1925.—Roland F. Raymond, general manager of the Raymond Paper Company, Lewiston, has announced that he severed his connection with the company and has opened a business of his own. His headquarters will be in the Lisbon street section of the Lewiston Journal building and he will conduct a wholesale paper supplies, hygienic, etc., business.

Using Paper Bags for Cement in Germany

The inland demand in Germany for jute bags and other products it is reported has shown a marked decrease in recent months, as whole industries, such as the cement industry, have lately been purchasing heavy paper bags instead of the jute product. High prices for jute products are increasing this tendency on the part of various jute consuming industries to use paper bags.

Quiet Period in Boston Paper Trade

[FROM OUR REGULAR CORRESPONDENT.]

BOSTON, June 22, 1925.—With the exception of a business spurt in the summer specialties branches, Boston, this last week, experienced one of its quietest periods this year. Here and there, however, there were merchants to be found who could report some business but on the whole the trade was extremely sub-normal. The only bright spots to be found were among the printers, dealers in the fine grades and houses selling drinking cups, paper plates, napkins and the various accessories used at summer resorts.

Wednesday, June 17, being a local holiday (Bunker Hill Day) also helped to slow up trade conditions. The only day that brought in generous orders was Thursday, the day after the holiday. The Storrs & Bement Company whose business fluctuates but little, reports good trade—a little better than last year at this time. Officials of this store decry reports that general business is poor. Mr. Stevenson of this house upon his return from a meeting in New York of the National Paper trade executives said that after having talked with representative men of the industry from all parts of the country that he was convinced that conditions were far from bad, in fact he thought they were promising.

In the coarse division there is reported some demand but mostly for small orders and to the regular trade. There is fairly good volume but far from what it was at this time last year, most of the dealers declare.

The box board men report a quiet week, feeling the reflection of dull business in many of the industries using boxes, more particularly the candy business which now is reported to be at practically a standstill, some of the larger manufacturers closing down for two week periods. What orders the paper box men are getting are of the hand-to-mouth type.

There is some business being done with roofings, the demand being steadier than any other branch and the prices remaining firm. There were no price changes in other lines in the Boston market this week.

Goes with Combustion Engineering Corp.

Edgar A. Jamieson, of the Jamieson Engineering Company, Ltd., of Vancouver, B. C., has been appointed western manager for the Combustion Engineering Corporation, Limited, with offices at Vancouver, B. C.

The Combustion Engineering Corporation is known throughout the world as the pioneer in advanced steam plant equipment. It has developed its Lopulco Pulverized Fuel Systems and Mechanical Stokers to such a degree of perfection that they are recognized as authorities in this class of engineering.

According to the technical journals the most complete and modern pulverized fuel plant in existence was installed by the company in the beautiful new steam power plant for the Ford Motor Company at Walkerville, Ontario; the exterior of which resembles a large banking institution much more than it does a power plant.

Another of its products is one of the most interesting and practical inventions in this day of conservation and efficiency—the Ruths Steam Accumulator. It is now building several of these large accumulators for the pulp and paper mills in Eastern Canada, and although new on this continent, they are not new in Europe, where an ever-increasing number of them are being built this year, covering a multitude of installations from apartment house steam plants to the largest of industries.

Mr. Jamieson is a graduate in Mechanical and Electrical Engineering of the University of Toronto, taking post-graduate work on the Metallurgy of Iron and Steel in Sheffield and at the Royal Ordnance College, England. During the war he was Inspector of Guns and Steel on the General Staff of the C. E. F., and returned to Vancouver in 1919. He is the only Member of the Iron and Steel Institute (Great Britain) west of the Sault in Canada, a Fellow of the Royal Society of Arts, London; a Member of the American Academy of Sciences, Engineering Institute of Canada, Association of Professional Engineers of B. C., and a charter member of the University Club, Gyro Club and Point Grey Golf and Country Club. Upon his return to civil life he instituted the engineering company which bears his name, and specialized in power investigation, pulp and paper, and bridges. Mr. Jamieson received his early business training in the Union Bank of Canada.

Paper Man Addresses Students

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., June 8, 1925.—"Every student of a university or college should work at least three days a week," declared Ezrae Levin, head of the Research Department of the Kalamazoo Vegetable Parchment Company, in an address before the students of Kalamazoo Central High School on "Schools of the Future."

"The social value of a university and the 'atmosphere' you absorb there and hear about are so much bunk," he added. "The future will not have as many easy jobs as the present. You must be ready to work shoulder to shoulder with a foreman in a paper mill whether you have an education or not. Athletics, fraternities, broad bottom pants will avail you nothing in the business world. There is little work from that of the President of the United States down that is not drudgery. You will be judged by the standard of whether or not your work is reliable. A college can make a failure of you and is a dangerous place to enter unless you are willing to take advice, are humble and unless you realize how little you know."

To Represent Uehling Co. in Wisconsin

APPLETON, Wis., June 22, 1925. The Uehling Instrument Company of Paterson, N. J., has just appointed Charles M. Bullard, 912 Washington street, Appleton, as its representative for central and northeastern Wis., to handle the Apex Co.'s Recorder and its other power plan instruments. Mr. Bullard is well acquainted with combustion problems in this territory, having had a long and varied experience there as a paper mill engineer.

To Be Superintendent of Foster Box Board Co.

UTICA, N. Y., June 23, 1925.—John A. Baum, recently superintendent of the plant of the United Paper Board Company of Thomson, N. Y., and previously superintendent of the Eddy Paper Company, Three Rivers, Mich., has been made superintendent of the plant of the Foster Box Board Company here. Mr. Baum has had many years experience in the manufacture of high grade folding box boards and test boards and specialties.

Heads Farrell Committee

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., June 8, 1925.—F. M. Hodge, president of the Kalamazoo Paper Company, has been named chairman of the "Farrell for Congress Club." Charles H. Farrell, Kalamazoo lawyer, is a candidate for congress from the Third Michigan district to fill the vacancy caused by the death of the late Arthur B. Williams of Battle Creek. All Kalamazoo is lining up behind its chosen leader.

Petrequin Paper Co. Opens New Warehouse

CLEVELAND, Ohio, June 22, 1925.—The Petrequin Paper Company opened its new office and warehouse at 1559 Superior avenue, Wednesday, June 17. The concern kept open house all day for the numerous guests who inspected the new quarters.

New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
Wednesday, June 24, 1925.

The week has witnessed a general letting down of activity in the paper market and the usual routine is being upset in the way that it has a habit of being upset every year about this time. Summer is here in earnest and nothing within range of human effort can hold back the lassitude which comes with hot weather. The forces of the sales departments are being depleted by those who are going on their vacations. Road schedules are being cut and there is a slackening of the terrific pace the sales departments have been keeping up to bring in the business which has been none too ready to fall into their laps. Things are unquestionably quiet and they will remain so until September. It is the general impression that the summer business will mount up to a somewhat greater magnitude than it did in 1924, but there is nothing to look forward to except such hand-to-mouth buying as transpires as the weeks go by. The chances are that the consumers can buy at a little better advantage during the rest of this month and during July and August than they can after September 1. They probably realize that fact, but there is no evidence that the advantage is appreciable enough to induce them to place orders and stock up to any considerable extent. The paper men are taking time to look ahead and also to size up the bulk of the business developed during the first half of the year. That business has been a trifle better apparently than in 1924, but it has not been up to expectations. There have been good spells of buying, but they have been almost momentary. The tone of the market has been good a fair share of the time, but the consumers have never been able to get away from the idea that "sufficient unto the day is the evil thereof." Probably the stock carried at the present time by the average consumer is about at the lowest ebb it has been and apparently most of them intend to keep it so indefinitely.

It is fair to believe, however, that things will perk up considerably in September and that the year may yet do something really worth while. It is pointed out that the very fact that consumers have permitted their stock to dwindle so low indicates that there will be liberal buying in the Fall and that consumers will be forced to place more or less heavy orders between that time and the close of the year. And so that hope will be the shining light to bring solace while things remain more or less at a standstill for the next two months.

News print is swinging along manfully, but the demand is showing a slight depression. In the metropolitan area the newspapers are making every effort to maintain circulation and stimulate advertisers during the summer, but many people are already escaping to the mountains and the shore and advertising patronage is beginning to slump and circulation figures are commencing to shrink. News print has plenty of vitality to carry it through the summer. It has a natural demand which is a safeguard preventing it from falling flat, but even here the pace has to slacken with the advent of the hot period and the forerunner of that slackening is already seen.

Wrapping papers are in quiet demand, although the past week witnessed some good business in this line. It is the impression that they will hold up better than they did in the summer of 1924.

The box board demand continues to slow down and the prospects do not favor them. It will probably be September before they come back to their own.

Fine papers are doing fairly well and the mills are running on a good schedule. They are booked ahead for considerable business and this will help them tide through the summer. Fine papers, in fact, are in a much better position today than they were at this time a year ago.

Mechanical Pulp

Prices are holding firm in the ground wood market, but buying is of a limited scope. Consumers are taking large quantities of ground wood on contract, however, and grinders have been kept fairly busy up to the present time. Working conditions are still good and production is being continued on a broad scale that stock may be piled up as a precaution against the usual summer droughts which militate against working conditions.

Chemical Pulp

There has been no particular change in the chemical pulp market and none is anticipated for the time being. Buying is letting up a little as most of the consumers have been buying on a heavy scale and are now fairly well provided for. Most of the business that is being booked now is being placed to care for emergency needs. Prices are holding firm.

Old Rope and Bagging

There is a somewhat better demand for old rope just now, the domestic qualities being sought more generally than has been the case for some little time. Prices are not changing materially, although concessions are said to be obtainable in certain quarters. Bagging is doing fairly well with roofing bagging and gunny bagging showing the most spirited call. Prices are holding well to their former quotations.

Rags

There is not a great deal of action in the rag market at this particular time. There seems to be little interest in the imported grades, but the call for the domestic is a little more liberal. Roofing rags, which have enjoyed a spirited call, are now in less demand. A few prices have undergone change, the tendency being downward, but, for the most part, the quotations of a week ago are still holding strong.

Waste Paper

There is a little better feeling in the waste paper market, but buying is not being conducted on an especially liberal scale. The consumers are always cautious during the summer and, while they have been unduly cautious right along, they are now becoming more so, indicating that they are facing the summer with their immediate needs looked after and without any desire to anticipate wants of the future. Prices are holding firm.

Twine

There is no great action in twine and the dealers are reconciling themselves to the apparent approaching of a period which in dullness will perhaps equal that of the summer of 1924 when the market was practically flat.

Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
Wednesday, June 24, 1925.

There has been little action in the chemical market during the past week and there is every evidence that the market has now settled down to the siege of dull summer business. There are those who believe the dullness will not reach the low mark that business attained last summer, but a careful study of all conditions seems to indicate that the June, July and August business will not greatly digress from the record for the same three months of 1924. Contract business is coming along in a fairly routine way, but spot buying has been reduced to a minimum. No one seems disposed to buy in an anticipatory way and are placing only orders that will enable them to tide over their most immediate needs. There has been an inquiring mood for the past week or so, but it has not developed a great amount of business. Consumers are asking about this and that and asking quotations which shows that they are inviting enticing offers. But the manufacturers, as much as they want business, are practically tied hand and foot. Prices are already low and the margin of profit has been cut so fine that every offer of concessions means a wiping out of profit which no one cares to do unless there is some exceptional reason for doing so or some great gain, foreign to the money-making part of the transaction, to be attained. There is less available stock on the market at this time than is usually the case at this time of the year. That is one encouraging feature, but thanks for that condition are not due to the buying on the part of the consumers. If the normal stock had been piled up there would be as great an amount of accumulated stock as ever, but the manufacturers this year had sufficient foresight to begin weeks ago to guard against this situation. Production has been curtailed and the stock kept within limits so that accumulations would be of only such a magnitude as it could be reasonably expected the consumers would move.

Prices have been maintained during the week, rosin being the only commodity to experience any change. This, however, means little, for rosin is well known for its erratic tendencies, being up today and down tomorrow. Manufacturers have already set themselves solidly against any price reduction and in view of their past performances there is little likelihood that anything radical in price changes will occur during the next couple of months.

BLANC FIXE.—While there is considerable interest displayed in blanc fixe as far as inquiries are concerned, there is no stimulated buying. None of the consumers are stocked up and probably most of them could handle without inconvenience a larger stock, but they are evidently waiting for buying opportunities that do not come. They will probably go along on this basis and keep their stock down to immediate needs until something in the way of concessions arouses their generosity and puts them in a better buying mood. The pulp is bringing from $60 to $70 a ton, while the powder is selling at from $75 to $90 a ton.

BLEACHING POWDER.—No commodity is showing the effect of early summer more pronouncedly than bleaching powder. There has been a considerable falling off in demand. Orders are always very small. The market, however, is not resorting to slashing prices and concessions are obtained in only rare instances where someone has an accumulation which they are eager to move. The price is still 1.90 cents a pound.

CAUSTIC SODA.—There is very little caustic soda in the market at the present time, but the demand is now so light that it is barely sufficient to keep it moving. Caustic is evidently in for a protracted dull spell. It is bringing from 3.10 to 3.15 cents a pound.

CASEIN.—Casein is doing very satisfactorily in spite of the fact that he demand has suffered considerable of a falling off. It has seen some remarkably good business in the past two months, but has apparently now about run its course. It is quoted at 12½ cents a pound with occasional sales reported at 12 cents.

CHINA CLAY.—The demand for China clay is also experiencing the lethargy of summer. It is by no means doing poorly and, with the weeks of extraordinarily good business it has been enjoying, it is hardly to be wondered at if it has exhausted itself. Consumers are now narrowing down on their orders and the market in this commodity is seeing a new tendency to restricted buying for immediate needs. The imported grades are bringing from $16 to $20 a ton and the domestic from $12 to $15.

CHLORINE.—Chlorine has slowed up a trifle, but is still doing very well. The price is firm, from $4.50 to $7.00 a pound in tanks being quoted.

ROSIN.—Rosin has not been doing quite as well as it did during May and early June. The price the past week touched a little lower notch, but it varies from day to day. The naval stores centers are now quoting from $6.65 to $6.90 and the price will probably hang around that figure for some time.

SALT CAKE.—Salt cake has not suffered any further drop in price from that recorded a couple of weeks ago, but the demand has slumped off and salt cake is back to the summer routine. The contract business comes through like clockwork, but spot buying amounts to little or nothing. The price is from $16 to $17 a ton, but it is said that it is not difficult to find opportunities to buy at a slightly shaded figure.

SODA ASH.—Soda ash has been showing a gradual trend to dullness and little business was booked the past week with little in sight for the immediate future. It is still selling at 1.38 cents a pound on a flat basis at the works.

SULPHATE OF ALUMINA.—Everything considered, the demand for sulphate of alumina is doing very well. This is its natural slow period and it is said to be doing considerably better than it was a year ago at this time. The commercial grades are bringing from 1.40 to 1.45 cents a pound at the Eastern works and the iron free is quoted at from 2.10 to 2.25 cents a pound.

SULPHUR.—Only the regular contract business is being done in sulphur and the price which has been for weeks at from $18 to $19 a ton does not vary.

TALC.—Talc is in a very slow way just now and is likely to repeat its unenviable record of last summer, if the demand continues to drop off much more. The price is from $17 to $18 a ton.

Shipping Paper to Kalamazoo

KALAMAZOO, Mich., June 22, 1925.—Two of the oldtime business quips were "Shipping coal to Newcastle" and "shipping beer to Milwaukee." To those can be added a third, "shipping paper to Kalamazoo." But there is a reason at least for the third statement. As much paper as Kalamazoo makes, and it makes more than any other city in America, it doesn't make all kinds. That is the reason why local label manufacturers are forced to buy their gummed paper elsewhere, undoubtedly why the Kalamazoo Label Company is now engaged in unloading a carload of gummed paper from McLaurin-Jones Company, Brookfield, Mass.

Incidentally it is the first solid carload of gummed paper ever received by a local concern, according to W. E. McGuire, president of the Kalamazoo Label Company. It is full weight, 40,000 pounds, and will be converted into millions of labels and stickers in the next few weeks.

The Kalamazoo Label Company, founded 19 years ago by L. W. Sutherland, is still prospering and can be counted as one of the really successful small factories in the city. When Mr. Sutherland retired to become head of the Sutherland Paper Company, the affiairs of the Kalamazoo Label Company were taken over by W. E. McGuire and James J. Murray, respectively president and secretary of the concern at this time. The largest orders are received from manufacturers of pottery and porcelain, glass, hosiery, tires automobile, meats, soaps and some dozen other lines.

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For tight-sealing cartons and wrapping dry foods.

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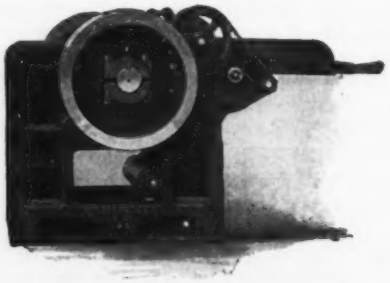
GIANT

RAG CUTTERS



TAYLOR, STILES & COMPANY

Riegelsville, N. J., U. S. A.

Canadian Representatives

Waterous Engine Works Company, Ltd., Brantford, Ont., Can.

Sole Agents for Europe

R. J. Marx, 133-139 Finsbury Pavement, London, E. C.

Market Quotations

Quoted by Hepburn & Co., No. 74 Broadway, N. Y. City, to whom all inquiry for quotations on these or any other Securities is referred.

BONDS	BID	OFFERED
Abitibi Power and Paper, Gen. 6s 1940	100	102*
Advance Bag and Paper, 7s 1943	98	100*
Bastrop Pulp and Paper, 7½s 1932	104	108*
Brompton Pulp and Paper, 6s 1927	93	95
Beaver Board, 8s 1933	92	94
Bedford Pulp and Paper, 6½s 1942	98	...
Berkshire Hills Paper Co., 8s 1941	...	80
Beaver Board, N. Y. Curb, 8s 1933	92	95
Beaver Products Corp., 7½s 1942	104	106
Belgo Canadian Paper, 6s 1943	100	101
Brown Paper Co., 8s 1931	102	...
Berlin Mills, 5s 1931	98	...
Bryant Paper Co., 6s 1942	98	101
Brown Company Serial, 6s 1925-43	97	100
Central Paper, 6½s 1925-42	91	94
Cape Breton Pulp and Paper, 6s 1932	99	...
Carthage Sulphite Pulp and Paper, 8s 1941	40	50
Champion Coated Paper Co., 6s 1924-34	...	102
Champion Fibre Co. Notes, 8s 1930	101	...
Cherry River Paper, 5s 1929	97	100*
Donnaconna Paper Co., Ltd., 6s 1940	99	101
Eddy Paper, 7s 1931	97	...
Eagle Paper, 6½s 1932	96	100
Escanaba Paper, 6s 1933	85	...
Fox River Paper, 7s 1931	100	...
Fort Orange Paper Co, 7s 1942	95	99
Eddy Paper Co., 7½s 1931	95	...
Gilbert Paper Co., 7s 1927	96	...
Gilbert Paper Co., 6½s 1923-29	101	102*
Hammermill Paper Co., 6s 1930-39	99	...
Hercule Corp'n, 8s 1936	98	101
Hummell, Ross Fibre Corp., 7s 1925	90	...
Jessup & Moore Paper Co., 6s 1939	90	97
Kenmore Pulp and Paper Co., 6s 1937	89	...
Lake Superior Pulp and Paper, 6s 1941	105	...
Mattagami Pulp and Paper, 6s 1937	90	...
Marinette & Menominee, 7½s 1936	104	...
National Paper and Type, 6s 1947	96	99*
Oswego Falls Corp., 8s 1942	102	105
Orono Pulp and Paper, 5s 1941	93	96*
Orono Pulp and Paper, 6s 1943	97	100*
Oxford Paper Co., 6s 1947	100	...
Paterson Parchment Paper, 5½s 1927-28	98	100
Paterson Parchment, 6s 1938	98	100
Parker, Young Co., 6½s 1944	92	96
Price Bros. & Co., Ltd., 6s 1943	100	102
Provincial Paper Mills, Ltd., 6s 1940	97	...
Riordon Co., Series A, 8s 1940	115	118
Riordan Paper, 6s 1924	91	94
Riordan Pulp and Paper, Ltd., 6s, 1929	33	35
River Raisin Paper, 8s 1936	104	106
St. Maurice Paper Co., Ltd., 5½s, 1929	98½	99¾
St. Regis Paper, 6½s, 1929-35	97	102
Smith (Howard) Paper Mills, 7s 1941	98	100
Smith (Howard) Paper Mills, 6s 1934	96	...
St. Croix Paper, 5s 1923-37	95	...
Stevens & Thomson Paper, 6s 1942	88	92
Spanish River Pulp and Paper, 6s 1931	105	108
Spanish River Pulp and Paper, Gen 8s 1941	106	109
Ticonderoga Pulp and Paper Co., 6s, 1940	91	95
Ticonderoga Pulp & Paper 1-5, 1930	88	93
S. D. Warren Company, 6s, 1945	97	100
Whittaker Paper, 1st 7s 1942	95	...
Watab Paper Co., 6½s 1942	101	...
Waterway Paper Products, 7s 1924-27	95	100
Wayagamack Pulp and Paper, Ltd., 6s 1951	87	90

STOCKS	BID	ASKED
Abitibi Power and Paper, Com	71	72
Abitibi Power and Paper, Pfd	108	...
Advance Bag and Paper, Com	8	12*
Advance Bag and Paper, Pfd	77	...
Beaver Board, Com	4	6
Beaver Board, Pfd	30	35
Bryant Paper, Cap	12	...
Bryant Paper, Pfd	9	...
Brompton Pulp and Paper, Cap	21	25
Chicago Mill & Lumber Co., Com	63	...
Chicago Mill & Lumber Co., Pfd	98	104
Crown Williamette, Com	93	98*
Crown Williamette, 7% A, Pfd	98	SW
Donnaconna Paper, Pfd	95	100
Great Northern Paper, Cap	255	265
Jessup & Moore Paper, Pfd	71	73
International Paper Co., Com	67	68
International Paper Co., Pfd	78	80
Mengel Company, Com	54	56
Mengel Company, Pfd	78	...
Oxford Papers, Com	93	97
Oxford Paper Co., Pfd	98	...
Provincial Paper Co., Com	94	98
Provincial Paper Co., Pfd	99	...
Price Brothers, Cap	39	40
St. Croix Paper	185	215
St. Maurice Paper Co., Cap	83	87
St. Regis Paper Co., Cap	54	56
Spanish River Pulp and Paper, Com	104	105
Spanish River Pulp and Paper, Pfd	115	117
Ticonderoga Pulp and Paper, Cap	145	...
West Virginia Pulp and Paper, Cap	44	47
West Virginia Pulp and Paper, Pfd	85	100
Whittaker Paper, Com	53	...
Whittaker Paper, Pfd	15	...

* Nominal

Paper

(F. o. b. Mill)

Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@32.00
Superfine	14.00	@32.00
Tub Sized	10.00	@15.00
Engine Sized	8.00	@11.00
News—		
Rolls, contract	3.50	@ 3.90
Rolls, transit	3.75	@ 4.25
Sheets	4.00	@ 4.25
Side Runs	3.25	@ 4.00
Book, Cased—		
S. & S. C.	7.00	@ 9.75
M. F.	6.25	@ 8.75
Coated and Enamel	8.00	@15.00
Lithograph	8.00	@15.00
Tissues—Per Ream		
White No. 1	.70	@ .90
Colored	1.00	@ 2.00
White No. 2	.65	@ .75
Anti-Tarnish	1.25	@ 2.35
Kraft	.85	@ .95
Manila	.70	@ .80
Kraft—		
No. 1 Domestic	5.50	@ 6.25
No. 2 Domestic	4.50	@ 4.75
Imported	5.50	@ 5.75
Manila—		
No. 1 Jute	9.25	@ 9.50
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.00
Fibre Papers—		
No. 1 Fibre	5.50	@ 6.00
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.50	@ 2.75
S. Screening	3.00	@ 3.50
Card Middler	4.00	@ 5.00
Boards—per ton—		
News	45.00	@47.50
Straw	57.00	@60.00
Chip	42.00	@45.00
Binders' Boards	72.50	@77.50
Sgl. Mla. Ll. Chip	60.00	@62.50
Wood Pulp	70.00	@75.00
Container	62.50	@67.50
Sulphate Screenings—		
Coarse	.80	@ .90
Refined	1.75	@ 2.00
Ground Wood—		
Screenings	20.00	@25.00
Glassine—		
Bleached, basis 25 lbs.	13.00	@16.00
Bleached, basis 20 lbs.	15.00	@16.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported	33.00	@37.00

(F. o. b. Mill)

No. 1 Domestic	28.00	@32.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	4.00	@ 4.50
Easy Bleaching	2.90	@ 3.25
No. 1 strong unbleached	2.75	@ 3.25
No. 2 strong unbleached	2.45	@ 2.80
No. 1 Kraft	2.95	@ 3.20
Sulphate—		
Bleached	3.75	@ 3.95

(F. o. b. Pulp Mill)

Sulphite (Domestic)—		
Bleached	3.75	@ 4.50
Easy Bleaching Sulphite	2.90	@ 3.25
News Sulphite	2.55	@ 2.80
Mitscherlich	3.25	@ 3.75
Kraft (Domestic)	2.75	@ 3.25
Soda Bleached	4.00	@ 4.25

Domestic Rags

New Rags

Prices to Mill, f. o. b. N. Y.

Shirt Cuttings—		
New White, No. 1	14.50	@15.25
New White, No. 2	8.00	@10.00
Silesias No. 1	10.50	@11.50
New Unbleached	14.00	@15.00
Washables	6.50	@ 9.25
Fancy	9.75	@10.25
Blue Overall	10.25	@11.25
New Blue Prints	7.50	@ 8.50
New Soft Blacks	5.75	@ 6.20
Mixed Khaki Cuttings	5.75	@ 6.25
Pink Corset Cuttings	10.50	@11.00
Pink Muslin	10.25	@10.75
New Light Seconds	3.25	@ .50
O. D. Khaki Cuttings	6.25	@ 7.25
Men's Corduroy	6.25	@ 6.75
New Mixed Blacks	4.00	@ 4.50
Old Rags		
White, No. 1—		
Repacked	6.50	@ 7.50
Miscellaneous	6.50	@ 7.00
White, No. 2—		
Repacked	4.50	@ 5.00
Miscellaneous	4.00	@ 4.50
St. Soiled, White	3.00	@ 3.50
Thirds and Blues—		
Repacked	4.00	@ 4.25
Miscellaneous	3.25	@ 3.50
Black Stockings	4.00	@ 4.50
Roofing Rags—		
Cloth Strippings	3.15	@ 3.25
No. 1	3.15	@ 3.25
No. 2	2.85	@ 3.05
No. 3	2.00	@ 2.25
No. 4	2.75	@ 2.85
No. 5A	1.80	@1.50

Foreign Rags

New Light Silesias	9.50	@10.50
Light Flannelettes	11.00	@12.00
Unbl'ched Cottons	14.00	@15.00
New White Cuttings	14.00	@15.00
New Light Oxfords	10.00	@11.00
New Light Prints	9.00	@10.00
New Mixed Cuttings	4.25	@ 4.75
New Dark Cuttings	4.00	@ 4.25
No. 1 White Linens	10.25	@11.25
No. 2 White Linens	7.25	@ 8.25
No. 3 White Linens	6.25	@ 6.75
No. 4 White Linens	4.50	@ 5.50
Old Extra Light Prints	4.25	@ 4.75
Ord. Light Prints	3.75	@ 425
Med. Light Prints	3.75	@ 4.25
Dutch Blue Cottons	4.00	@ 4.50
Ger. Blue Cottons	4.00	@ 4.25
Ger. Blue Linens	425	@ 4.75
Checks and Blues	3.50	@ 3.75
Linsay Garments	2.60	@ 2.70
Dark Cottons	2.50	@ 2.60
Shoppery	2.40	@ 2.50
French Blues	4.00	@ 4.50

Bagging

Prices to Mill F. o. b. N. Y.

Gunny No. 1—		
Foreign	3.10	@ 3.25
Domestic	3.15	@ 3.25
Wool Tares, light	2.50	@ 2.60
Wool, Tares, heavy	2.60	@ 2.70
Bright, Bagging	2.55	@ 2.65
Mixed Bagging	2.30	@ 2.40
Sound Bagging	2.10	@ 2.20
Roofing Bagging	1.70	@ 1.90
Manila Rope—		
Foreign	6.25	@ 6.75
Domestic	6.75	@ 7.25
New Bu. Cut	3.50	@ 3.75
Hessian Jute Threads—		
Foreign	4.00	@ 4.25
Domestic	3.25	@ 3.50

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, White, No. 1	3.40	@ 3.60
Hard, White, No. 2	3.15	@ 3.40
Soft, White, No. 1	2.70	@ 2.80
Flat Stock—		
Stitchless	1.45	@ 1.55
Overissue Mag	1.25	@ 1.40
Solid Flat Book	1.40	@ 1.50
Crumpled No. 1	1.25	@ 1.35
Solid Book Ledger	1.80	@ 1.90
Ledger Stock	1.40	@ 1.50
New B. B. Chips	.65	@ .75
Manilas—		
New Env. Cut	2.25	@ 2.40
New Cut. No. 1	1.75	@ 2.00
Extra No. 1 old	1.40	@ 1.50
Print	1.20	@ 1.30
Container Board	.70	@ .90
Bogus Wrapper	1.00	@ 1.10
Old Krafts Machine compressed bales	2.00	@ 2.10
News—		
No. 1 White News	1.85	@ 2.00
Strictly Overissue	1.05	@ 1.1[illegible]
Strictly Folded	.75	@ .85
No. 1 Mixed Paper	.55	@ .65
Common Paper	.35	@ .45

Twines

Cotton—(F. o. b. Mill)—		
No. 1	.42	@ .45
No. 2	.41	@ .43
No. 3	.40	@ .42
India, No. 6 basis—		
Light	.19	@ .20
Dark	.17	@ .19
B. C., 18 basis	.39	@ .41
A. B. Italian, 18 Basis	.56	@ .61

Finished Jute—			
Dark, 18 basis...	.30	@	.31
Light, 18 basis...	.28	@	.30
Jute Wrapping, 3-6 Ply—			
No. 1	.18	@	.20
No. 2	.18	@	.20
Tube Rope—			
4-ply and larger.	.15	@	.17
Fine Tube Yarn—			
5-ply and larger.	.20	@	.28
4-ply	.21	@	.24
3-ply	.22	@	.25
Unfinished India—			
Basis	.14	@	.15
Paper Makers' Twine			
Balls	.12	@	.13
Box Twine, 2-3 ply	.14	@	.15
Jute Rope	.20	@	.40
Amer. Hemp, 6.....	.30	@	.32
Sisal Hay Rope—			
No. 1 Basis.....	.14	@	.16
No. 2 Basis.....	.10	@	.12
Sisal Lath Yarn—			
No. 1	.14	@	.15
No. 2	.11	@	.13
Manila Rope	.18	@	.19

CHICAGO

Paper

F. o. b. Mill

All Rag Bond.....	35	@	40
No. 1. Rag Bon..	25	@	35
No. 2 Rag Bond..	14	@	25
Water Marked Sul-Phite	9	@	12
Sulphite Bond.....	7	@	10¼
Sulphite Ledger ...	9	@	12
Superfine Writing..	18	@	24
No. 1 Fine Writing	14	@	18
No. 2 Fine Writing	12	@	14
No. 3 Fine Writing	9	@	12
No. 1 M. F. Book..	5½	@	7½
No. 1 S. & S. C. Book	6	@	7¼
Coated Book	8	@	10
Coated Label	8	@	10
News—Roll, mill...	3½	@	4¼
News—Sheets, mill.	3¾	@	4¾
No. 1 Manila.....	4½	@	5½
No. 1 Fibre.....	4½	@	5¼
No. 2 Manila.....	3¾	@	4½
Butchers' Manila...	4	@	4½
No. 1 Kraft.....	5¾	@	6¼
No. 2 Kraft.....	4.50	@	5.00
Wood Tag Boards..	4	@	6
Sulphite Screenings.	3.00	@	3.25
Manila Tissue, 24x36 sheet	7½	@	8
White Tissue, 20x30 sheet	7	@	7¼
Boards, per ton—			
(Delivered Central Territory)			
Plain Chip 45.00		@	47.50
Solid News 47.50		@	50.00
Manila Line Chip.57.50		@	60.00
Container Lined—			
(Delivered Central Territory)			
85 Test	—	@	75.00
100 Test	—	@	80.00

Old Papers

F. o. b. Chicago

Shavings—			
No. 1 Hard White	3.15	@	3.25
White Envel. Cuttings.....	3.15	@	3.25
No. 1 Soft Shav.	2.65	@	2.75
No. 1 Mixed.....	1.45	@	1.50
No. 2 Mixed.....	1.15	@	1.20
Ledger and Writings	1.50	@	1.55
Solid Books	1.40	@	1.45
No. 1 Light Books.	1.00	@	1.05
Blanks	1.90	@	1.95
Kraft	2.05	@	2.10
New Kraft Cuts.	2.30	@	2.35
Manila Envelope Cuttings.....	2.40	@	2.50
Ex. No. 1 Manila..	2.00	@	2.10
Print Manila	.90	@	.95
Folded News (over-issue)	.85	@	.90
Old Newspapers—			
No. 1	.70	@	.75
No. 2	.60	@	.65
Mixed Papers—			
No. 1	.55	@	.60
No. 2.....	.50	@	.55
Straw Clippings....	.75	@	.80
Binders' Clippings..	.70	@	.65
Roofing Stock, f. o. b. Chicago, Net Cash—			
No. 1.....	47.00	@	50.00..
No. 2.....	45.00	@	50.00
No. 3.....	43.00	@	48.00
No. 4.....	41.00	@	48.00

BOSTON

Paper

Ledgers—			
Sulphite	.08½	@	.18
Rag content	.18	@	.36½
All Rag	.38	@	.50
Bonds—			
Sulphite	.08½	@	.12
Rag Content.....	.17	@	.45
All Rag	.36½	@	.51
Writings	.08	@	.20
Superfines	.22	@	.50
News	.04	@	.04½
Book, Super	.08	@	.10
Book, Coated	.09	@	.14
Coated Litho.....	.09½	@	.15
Label	.09½	@	.15
Jute Manila No. 1.	.11	@	.12
Manila, Sul. No. 1.	.05	@	.05
Manila, Sul. No. 2.	.03½	@	.04½
No. 1 Kraft	.06½	@	.06½
No. 2 Kraft	.05½	@	.05½
Common Bogus	.03½	@	.04
Straw Board	—	@	50.00
News Board	—	@	45.00
Chip Board	—	@	42.50
Single Manila Pulp lined board.....55.00		@	60.00
Single White, patent coated board.....75.00		@	82.50
Wood Pulp Board..80.00		@	85.00
Binder Boards 75.00		@	85.00
Tarred Felts—			
Regular 61.00		@	63.00
Slaters 66.00		@	68.00
Best Tarred, 1 Ply, roll 1.50		@	1.60
Best Tarred, 2 Ply, roll 1.70		@	1.80
Best Tarred, 3 Ply, roll 2.00		@	2.10

Old Papers

Shavings—			
No. 1 Hard White	4.00	@	3.75
White Blank News.	1.75	@	2.00
Manila Env. Cuttings.....	2.80	@	3.00
No. 2 Hard White	3.25	@	3.50
No. 1 Soft White..	.04½	@	—
No. 2 Soft White..	.03¾	@	—
No. 1 Mixed.....	1.60	@	1.75
No. 2 Mixed.....	1.25	@	1.50
Solid Ledger Stock.	2.00	@	1.75
Writing Paper	—	@	1.50
No. 1 Books, Heavy	1.75	@	1.50
No. 1 Books, Light	—	@	1.25
No. 1 New Manila.	2.50	@	2.60
No. 1 Old Manila.	1.75	@	2.00
Print Manila	1.05	@	1.20
Old Kraft	2.00	@	2.25
Overissue News.....	1.00	@	6.54
Old Newspapers.....	.70	@	5.54
No. 1 Mixed Paper	.60	@	.47½
Box Board, Chip..	.60	@	.50

Bagging

Price f. o. b. Boston

Gunny No. 1—			
Foreign	—	@	3.00
Domestic	—	@	3.25
Manila Rope.....	6.00	@	6.50
Mixed Rope.....	1.50	@	2.25
Scrap burlaps....	—	@	2.25
Wool Tares, heavy.	—	@	3.00
Mixed Strings...	—	@	2.25
New Burlap Cuttings	—	@	3.75

Domestic Rags (New)

Price f. o. b. Boston

Shirt Cuttings—			
New White No. 1	.15½	@	.15
Silesias, No. 1..	.11	@	—
New Unbleached.	.14¼	@	.15
Washable	.07½	@	.08
Fancy	.10½	@	—
Cottons—According to Grades—Blue—			
Blue overalls....	.12½	@	—
New Black, soft...	.07	@	—
Khaki Cuttings....	.07	@	—
Corduroy	.04	@	.05
New Canvas.....	.12	@	.12½

Domestic Rags (Old)

Price f. o. b. Boston

White No. 1.....10.00		@	—
Repacked 9.50		@	—
Miscellaneous 8.50		@	—
White No. 2—			
Repacked 6.50		@	—
Miscellaneous ... 5.25		@	—
Thirds and Blues—			
Repacked 5.00		@	—
Miscellaneous ... 3.50		@	—
Roofing Stock—			
No. 1..... 3.00		@	—
No. 2..... 3.00		@	—
No. 3..... 2.50		@	—
No. 4..... 2.00		@	—

PHILADELPHIA

Paper

Bonds	.07	@	.40
Ledgers	.11	@	.40
Writings—			
Superfine	.13	@	.18
Extra fine	—	@	.22
Fine	.20	@	.26½
Fine, No. 2.....	.16	@	.25
Fine, No. 3.....	.12	@	.20
Book, M. F.....	.06	@	.07
Book, S. S. & C..	.06	@	.07½
Book, Coated	.11	@	.16
Coated Lithograph..	.09	@	.12
Label	.09	@	.12
News	.03½	@	.04
No. 1 Jute Manila.	.09½	@	—
Manila Sul., No. 1.	.04½	@	.06
Manila No. 2.....	.04	@	.04½
No. 2 Kraft.....	.05	@	.05½
No. 1 Kraft.....	.06¾	@	—
Common Bogus.....	.02¾	@	—
Straw Board.....56.00		@	55.00
News Board 42.50		@	—
Chip Board 42.50		@	—
Wood Pulp Board.. 4.50		@	5.00
(Carload Lots)			
Binder Boards—			
Per ton 75.00		@	80.00
Carload lots 65.00		@	70.00
Tarred Felts—			
Regular 61.00		@	63.00
Slaters 66.00		@	68.00
Best Tarred, 1-ply (per roll) 1.70		@	1.80
Best Tarred, 2-ply (per roll) 1.50		@	1.60
Best Tarred, 3-ply. 2.00		@	2.10

Bagging

F. o. b. Phila.

Gunny, No. 1—			
Foreign	3.00	@	3.25
Domestic	3.00	@	3.25
Manila Rope....	4.75	@	6.00
Sisal Rope	2.50	@	—
Mixed Rope	1.00	@	1.25
Scrap Burlaps....	2.25	@	2.50
Wool Tares, heavy.	2.00	@	2.13
Mixed Strings...	1.25	@	—
No. 1, New Lt. Burlap	3.50	@	3.75
New Burlap Cuttings	3.75	@	—

Old Papers

F. o. b. Phila.

Shavings—			
No. 1 Hard White	3.50	@	3.60
No. 2 Hard White	3.00	@	3.25
No. 1 Soft White	2.50	@	2.60
No. 2 Soft White	1.75	@	—
No. 1 Mixed....	1.00	@	1.10
No. 2 Mixed....	.90	@	1.00
Solid Ledger Stock.	1.75	@	1.90
Writing Paper.....	1.60	@	1.65
No. 1 Books, heavy	1.25	@	—
No. 2 Books, light.	1.00	@	—
No. 1 New Manila.	1.50	@	1.75
No. 1 Old Manila..	1.25	@	1.50
Container Manila ..	.85	@	.90
Old Kraft	2.00	@	2.10
Over issue News....	.90	@	.95
Old Newspaper.....	.40	@	.50
No. 1 Mixed Paper	.40	@	.50
Common Paper.....	.30	@	.35
Straw Board, Chip.	.60	@	.65
Binders Bd., Chip..	.60	@	.65

Domestic Rags—New.

Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.13½	@	.14
New White, No. 2	.06½	@	—
Silesias, No. 1...	.10½	@	.11
New Unbleached.	.14	@	.14½
Washable	.07¾	@	.08¼
Fancy	.09½	@	.10
Cottons—according to grades—			
Blue Overall....	.11	@	.11½
New Blue	.04	@	.04¼
New Black Soft.	.06	@	.06¼
New Light Seconds	.03½	@	.03¾
Khaki Cuttings..	.06½	@	.07
Corduroy	.04	@	.04½
New Canvas	.08¾	@	.09
New Black Mixed	.05	@	.05¼

Old

White, No. 1—			
Repacked	6.75	@	7.00
Miscellaneous ...	6.25	@	6.50
White, No. 2—			
Repacked	.05	@	.05¼
Miscellaneous ...	.04¾	@	.05
Thirds and Blues—			
Repacked	3.75	@	4.00
Miscellaneous ...	3.15	@	3.25
Black Stockings..	4.25	@	4.50
Roofing Stock—			
No. 1	2.00	@	2.15
No. 2	1.90	@	2.00
No. 3	1.25	@	1.35
No. 4	1.10	@	1.20
No. 5A	1.10	@	1.15
B	1.05	@	1.10
C	1.00	@	1.05

TORONTO

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.10½	@	.12½
Light tinted.....	.11	@	.13½
Dark tinted.....	.12½	@	.15
Ledgers (sulphite)..	—	@	.13
Ledgers No. 1.....	.36	@	—
Ledgers No. 2.....	.27	@	—
Writing	.09½	@	
Writing S. C.....	.10	@	
News f. o. b. Mills—			
Rolls (carloads)..	3.50	@	—
Sheets (carloads).	—	@	4.25
Sheets (2 tons or over).....	—	@	4.60
Book—			
No. 1 M. F. (carloads)	8.00	@	—
No. 2 M. F. (carloads)	7.50	@	—
No. 3 M. F. (carloads)	7.00	@	—
No. 1 S. C. (carloads)	8.50	@	—
No. 2 S. C. (carloads)	8.00	@	—
No. 3 S. C. (carloads)	7.50	@	—
No. 1 Coated and litho 14.50		@	—
No. 2 Coated and litho 13.50		@	—
No. 3 Coated and litho 12.75		@	—
Coated tinted	.15	@	—
Wrapping—			
Rag Brown	4.75	@	—
White Rag	5.25	@	—
"B" Manila	5.50	@	—
No. 1 Manila...	6.50	@	—
Fiber	6.50	@	—
Kraft, M. F.....	7.00	@	—
M. G.	7.15	@	—

Pulp

(F. o. b. Mill)

Ground wood.....	29.00	@	30.00
Sulphite easy bleaching	60.00	@	65.00
Sulphite news grade	55.00	@	58.00
Sulphite, bleached.	75.00	@	80.00
Sulphate 62.50		@	65.00

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut..	3.60	@	—
Soft White Book shavings	3.25	@	—
White Blk, News.	1.70	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.25	@	—
Light and Crumpled Book Stock	1.10	@	—
Ledgers and Writings	1.40	@	—
Solid Ledgers....	1.40	@	—
Manilas—			
New Manila Cut.	—	@	1.60
Printed Manilas..	1.00	@	—
Kraft	2.10	@	2.10
News and Scrap—			
Strictly Overissue	.80	@	—
Folded News....	.80	@	—
No. 1 Mixed Papers	.55	@	—
Domestic Rags—			
Price to mills, f. o. b. Toronto		Per lb.	
No. 1 White shirt cuttings	.15	@	.15¼
No. 2 White shirt cuttings	.08	@	.08½
Fancy shirt cuttings	.09¾	@	.10
No. 1 Old Whites..	—	@	—
Third and blues....	.05½	@	.05¾

Celotex Co. Doubles Capacity at Marrero

NEW ORLEANS, La., June 15, 1925.—The Celotex company's big plant at Marrero, opposite Napoleon avenue, started two new machines early this month. This will double the capacity of the plant, and give it a daily output of 700,000 square feet of building board, manufactured from bagasse, known as celotex. Four years ago, when the plant opened, the daily capacity was 18,000 square feet. The company is today making the preliminary plans for building a new plant, alongside the present one, that will double the capacity again. It is considered certain that the new plant will be in operation within five years. The yearly payroll today is about $500,000.

All in all, this has been a remarkable chapter in the industrial history of New Orleans.

C. F. Dahlberg and C. G. Muench, vice-presidents of the company and in charge of operations and construction, in authorizing the foregoing announcement, add that the economies resulting from the increased production will be passed on to the consuming public, the price on all celotex being reduced as of June 1.

The company is today shipping to practically every section of the United States; to Canada, to Great Britain, to the Orient, and is now beginning its campaign on Europe. It finds the market eager for the product, and its principal problem so far has been to produce enough to supply the demand of the trade that was being served.

When the company began operations, it secured all the bagasse it needed from one sugar plantation of Louisiana—Southdown; since then, it has had to add many more. The ultimate size of the celotex industry at New Orleans depends only on the sugar cane production of Louisiana.

Mr. Dahlberg said Saturday: "The company has experienced a practically steady increase in business from month to month, the month of May being the largest in its history, so that the new units which are now ready for operation are necessary to take care of the ever-increasing demand for Celotex.

Mrs. Josephine Crane Gets Honor Degree

[FROM OUR REGULAR CORRESPONDENT.]

DALTON, Mass., June 16, 1925.—There is much gratification because of the action of New York University last week in offering the degree of master of humane letters upon Mrs. Josephine Boardman Crane widow of the late Senator W. Murray Crane. The degree was conferred upon Mrs. Crane because of her interest in the education and especially her fostering of the so-called "Dalton plan" of teaching which has attracted wide attention. In bestowing the degree Chancellor E. E. Brown said:

Josephine Boardman Crane—A free people must have freedom of education and freedom of educational experiment. You have fostered and furthered innovations in teaching of children which have for their aim a more completely realized individuality in a more completely realized society; and these aims and methods have entered to a notable extent into the educational movement of our time, on our own land and in foreign lands. By virtue of the authority vested in me as chancellor of New York University I welcome you to the degree of master of humane letters."

John Matthews, Jr., Visits Pacific Coast

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., June 24, 1925.—John Matthews, Jr., chief of the Paper Division, and director of the Bureau of Domestic and Foreign Commerce, has left Washington for an inspection trip to the various district offices of the Bureau on the Pacific Coast. It is expected that he will be away for about a month.

STEARNS
WOOD TANKS

STORAGE TANKS ACID TOWERS
BLOW PITS PENSTOCKS
ETC.

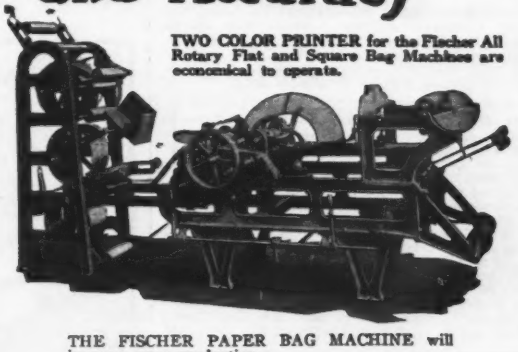
Our Engineering Department is at your Service

EVERYTHING IN WOOD OR WOOD WORK 1849

The A. T. Stearns Lumber Company
Established 1849
125 Taylor St., Neponset, Boston, Mass.

A Marvel for Speed and Accuracy

TWO COLOR PRINTER for the Fischer All Rotary Flat and Square Bag Machines are economical to operate.



THE FISCHER PAPER BAG MACHINE will increase your production.

In design, construction and operation it is completely revolutionary, overshadowing and relegating to the realms of the obsolete all previous types of machines for this purpose.

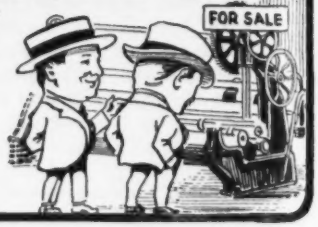
It is a money maker—a money saver.

It needs but a demonstration to fully convince you of its profit-producing capabilities.

Get the details—arrange a demonstration and cash in on this wonderful machine.

FISCHER MACHINE CO.
310-316 North Eleventh St.
PHILADELPHIA

The CLEARING HOUSE of The Paper Industry



PAPER TRADE JOURNAL
10 East 39th Street New York, N. Y.
Telephone Caledonia 0560

"SITUATION WANTED" ADVERTISEMENTS.—4c a word, double rates for display (heavy face type). Minimum charge $1.00. If repeated ½ rate will be charged for each consecutive repetition.

"HELP WANTED" ADVERTISEMENTS—4c a word, double rates for display (heavy face type). Minimum charge $1.00.

CLASSIFIED ADVERTISEMENTS—4c a word, double rate for display (heavy face type). Minimum charge $1.00.
All classified, "Help Wanted" and "Situation Wanted" advertisements are payable in advance.

HELP WANTED

WANTED—Man to operate wet machine on Binders Board. Address, Box 8261, care Paper Trade Journal. tf

WANTED—Purchasing Agent and Office Manager for concern manufacturing waxed papers, plain and printed in colors. Great possibilities and future for right man. All answers kept strictly confidential. Give detailed experience covering last 10 years. Address, Box 8349, care Paper Trade Journal. J1-2

WANTED—Three New York City salesmen with experience selling Wrapping, Tissue and Twine to either Jobbing or Consuming Trade. Salary. Address, Box 8340, care Paper Trade Journal. Jn-25

SUPERINTENDENT to take complete charge of manufacturing and printing of flour, lime and plaster sacks. Wonderful opportunity with old established and reliable concern. State experience and salary expected. Address, Box 8323, care Paper Trade Journal. Jn-25

WANTED—Experienced operator Langston or Cameron slitter. Preference given man with knowledge Hamblet sheeter. Location middle western city. Advise experience and starting salary wanted. Address, Box 8331, care Paper Trade Journal. tf

ONE OF THE Fastest growing factories in the country manufacturing hand made bags and paper specialties of all kinds, finds itself on account of expansion in need of a man who is capable of taking complete charge of the manufacturing operations. One who is experienced in figuring costs, laying out operations and in general management and who has had experience in dealing with labor. The party chosen can, if he desires, secure stock in this company, but this is by no means required, but is offered as an inducement. For particulars write Box 8359, care Paper Trade Journal, giving full information as to experience, age, whether married or single and salary expected. tf

WANTED

Two (2) live wire paper salesmen, at present time controlling some business, who are desirous of connecting with a new paper organization that offers the most liberal commission proposition and drawing account. We offer unlimited territory to the right men. Address, Box 8356, care Paper Trade Journal. J1-9

HELP WANTED

WANTED—Machine tender on cylinder tissue machine with Fuller attachment. Address, Box 8338, care Paper Trade Journal. Jn-25

SUPERINTENDENTS, EXECUTIVES, ENGINEERS, $3,000-$25,000, find our individual, confidential service effective in making new connections. Personally conducted by Mr. Jacob Penn, the eminent employment authority, known to leading business men throughout America. Not agency. Jacob Penn, Inc., 305 Broadway, New York. tf.

WANTED—Superintendent for small two-machine mill running on .009 straw for corrugating. Steady work and a good job for the right man. Give references in first letter and state salary expected. Address, Box 8357, care Paper Trade Journal. J1-16

WANTED—Machine tender experienced on Harper-Fourdrinier. Also Beater man. Address, Box 8358, care Paper Trade Journal Jn-25

ENGINEER DRAUGHTSMAN with paper mill experience for work in West. Give age, experience and salary expected. Address, Box 8352, care Paper Trade Journal. J1-9

SPECIALTY SALESMAN

Up-to-date manufacturer, well financed, located in middle west, wants salesman for Chicago and nearby large cities; to sell folded toilet papers and allied lines.

Applicants to receive consideration must state all particulars in full that would be of interest to a prospective employer.

This is a real opportunity for the right man.

Address, Box 8321, care Paper Trade Journal. J1-2

WANTED—Slitterman: Cameron Machine on Gummed Tape. State experience and salary desired. Address, Box 8360, care Paper Trade Jorunal. Jn-25

WANTED—Cylinder machine tender, experienced on plain chip and lined board. Address, Box 8361, care Paper Trade Journal. Jn-25

WANTED—Draftsman, preferably with some paper mill experience and shop practice. Address, Box 8373, care Paper Trade Journal. J1-2

WANTED—Experienced beater engineer on Grease Proof Papers. One who understands beating thoroughly. High wages. Mill located in large city of central west. Address communications to Box 8379, care Paper Trade Journal. Jn-25

HELP WANTED

WANTED—Large specialty mill has excellent opening for young man with advertising and selling experience for special work in sales department. One with some experience in paper business preferred. Apply in detail, giving age, experience, qualifications and references. Address, Box 8372, care Paper Trade Journal. J1-2

GENERAL SUPERINTENDENT WANTED

for a modern pulp and paper mill, with practical experience in making chemical pulps, also white papers. Prefer applicant with technical education. Applicants are requested to state age, detailed experience and education, salary earned in past and expected. Also to send copies of reference. Answer quickly to "MODERN," Box 8336, care Paper Trade Journal. J1-9

SITUATIONS WANTED

POSITION WANTED—Boss beaterman or shift Boss by up-to-date color man. Also knows how to beat stuff for mostly any grade rag or wood. Address, Box 8375, care Paper Trade Journal. Jn-25

MASTER MECHANIC with 25 years of wide experience in construction and maintenance in paper mills, open for a position. Best references. Address, Box 8374, care Paper Trade Journal. J1-16

SUPERINTENDENT — Thoroughly experienced. All grades Boxboards: Cardboards, Tags, Middles, Bristols and cylinder papers, whites and colors; high finished, free from felt marks. Efficient, reliable. Maximum producer, minimum cost. Mechanical ability. Address, Box 8376, care Paper Trade Journal. J1-16

BEATERMAN—Papermaker—hard or soft furnishes, draw stuff to suit lightest weights. Tisues, Manifolds, Sulphite Bond Books. Experienced colors. Address, Box 8378, care Paper Trade Journal. J1-2

SUPERINTENDENT—I will be open for position in September. Extensive experience in up-to-date Board mills. Have had 26 years of Board Mill experience on combination boards and containers. Good mechanical experience on construction and maintenance of power plants as well as mill equipment. Address, Box 8342, care Paper Trade Journal. tf

SITUATIONS WANTED

SUPERINTENDENT or Foreman. Energetic young man with good education, twelve years' experience sulphite bonds, tag and specialties, kraft, manilla, waterfinish, test container, Fourdrinier and Cylinder; good colorman. Address, Box 8314, care Paper Trade Journal. Jn-25

SUPERINTENDENT-MANAGER, is open for engagement. Experienced in efficient, modern operation of sulphite pulp, Fourdrinier and Cylinder paper and board mill. Address, Box 8314, care Paper Trade Journal. J1-23

SUPERINTENDENT—Long experience in loft dried and other fine grades, seeks position. Best of references. Address, Box 8344, care Paper Trade Journal. J1-2

BOARD and Paper Mill Superintendent wishes to make a change. A-1 on high grade Board, understands remodeling, repairs, upkeep, also power plant. Seven years' with last employers. Best of references. Address, Box 8333, care Paper Trade Journal. Jn-25

SULPHITEMAN—Chemical Engineer—with 5 years' experience as worker, general foreman and chemist in different sulphite mills and thoroughly familiar with acid making and cooking as well as other departments of a sulphite mill, desires position as Superintendent or Assistant. Now employed as chemist but desires change. Address, Box 8345, care Paper Trade Journal. Jn-25

PAPER BAG FOREMAN ADJUSTER—Self-opening, Flat and Square; Printing First-class mechanic. Address, Box 8196, care Paper Trade Journal. Jn-25

WANTED—Position as Superintendent or assistant in Cylinder mill. 22 years' experience on Rope and Kraft. Can produce both quality and quantity. Address, Box 8380, care Paper Trade Journal. J1-9

POSITION WANTED

By GROUND WOOD SUPERINTENDENT. Twenty-five years' experience in organizing, construction, maintenance and operating.

Experience in modern methods of making Ground Wood.

Can take full responsibility to secure results. References.

Address, Box 8328, care Paper Trade Journal. J1-2

SITUATIONS WANTED

PAPER MILL EXECUTIVE AVAILABLE—The paper manufacturing company with which I am now Manager is going to liquidate about September 1st, at which time I will be available for an Executive position, having had twenty-five years' experience managing, purchasing and manufacturing paper from rags and wood pulp. Address, Box 8341, care Paper Trade Journal. J1-2

SUPERINTENDENT seeks new connection. Thoroughly experienced on Boxboards. Mechanical ability. Efficient, reliable. Maximum producer at minimum cost. Best references. Address, Box 8320, care Paper Trade Journal. tf

WANTED—Position as Superintendent or assistant in Soda or Sulphate Mill. 15 years experience different kinds of woods and grades of pulp. Can get and keep up production, also good manager of help. Address, Box 8325, care Paper Trade Journal. Jn-25

BEATER ENGINEER would like position. Experienced on Sulphite and Rag stock, nearly all grades. References. Address Box 8326, care Paper Trade Journal. Jn-25

PRACTICAL PAPER maker wants position with progressive concern as superintendent, assistant superintendent or Boss machine tender. Wide experience on bond, manilas, bag, music, twisting and can get high test on kraft and rope. Address, Box 8366, care Paper Trade Journal. J1-2

POSITION WANTED—By A No. 1 ambitious, conscientious working master mechanic. 23 years' experience at maintenance and construction of cylinder and fourdrinier machines. Water, steam and electric power. Age 44. References. Address, Box 8367, care Paper Trade Journal. J1-9

WAX PAPER SUPERINTENDENT—A-1 man in field for superintendent or press supervisor. Address, Box 8368, care Paper Trade Journal. Jn-25

MACHINE TENDER with 10 years' experience on all grades of boxboard wishes steady work. Sober and reliable. Address, Box 8343, care Paper Trade Journal. Jn-25

MILL EXECUTIVE—Young man with fine record. 15 years' practical experience—papeteries, cover papers and specialties. Good education. Would make excellent assistant to president of large manufacturing company, or mill manager. Honest and of clean habits. Also know manufacture of test and box boards. Now employed. Address, Box 8362, care Paper Trade Journal. Jn-25

SITUATIONS WANTED

BOSS FINISHER—Young man with several years' experience in finishing line now open for position. Owing to change of product in present mill, finishers not needed. References. Address, Box 8365, care Paper Trade Journal. J1-9

FOR SALE

BELOIT PASTER

We offer a 112" Beloit heavy duty paster with seven (7) back stands,

Four (4) pair of squeeze rolls,
One (1) pair silicate rolls,
One (1) Beloit duplex cutter, heavy type with elliptic gears.

A bargain if sold immediately.

The Shartle Brothers Machine Co.
Middletown, Ohio

tf.

ALFRED BUNGE

500 Fifth Ave. New York

Phone: Penn. 4880
Cable address: "ALFBUNGE"

For Prompt Shipment from Spot and to Arrive

Svano Sulphite
Continental Kraft Pulp
Groundwood
Paper Machine Wire
Cloth of durable metal.

BEFORE YOU BUY, ASK FOR MY PRICE

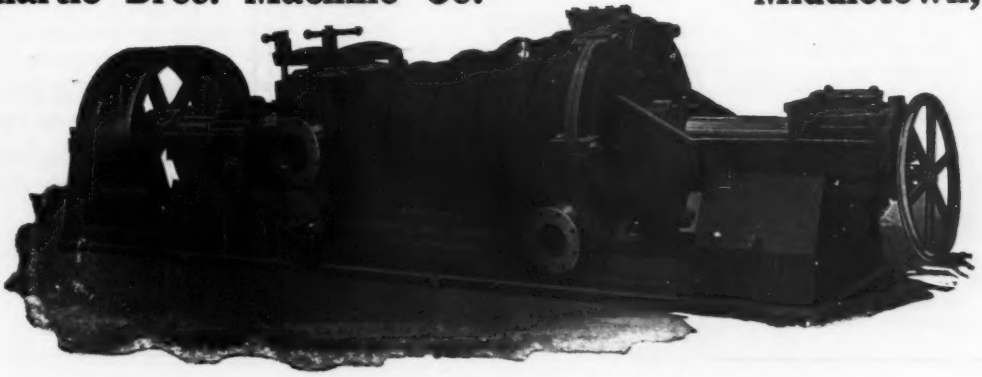
KURT WANDEL

Consulting
Mechanical Engineer

Specializing on
Paper Converting

261 BROADWAY
NEW YORK, N. Y.

The Shartle Bros. Machine Co. Middletown, Ohio



FOR SALE

FOR SALE—1 60-inch Waxing Machine and 1 48-inch Spot Cutter. Perfect condition for immediate delivery. Kuhmarker Manufacturing Co., 149 West 24th St., New York City. Jn-25

FOR SALE: Slightly Used Beaters. 1—1,200 lb. Iron Tub Beating Engine. 1—2,000 lb. Allen Breaker Beater (nearly new). 1—1,200 lb. Breaker Beater. (Can be made into the regular beating engine.) Will sell the above "as is" or factory rebuilt. ALSO: 2—800 Beating engines, rebuilt with new wooden tubs. THE NOBLE & WOOD MACHINE CO., Hoosick Falls, N. Y. tf

FOR SALE

2—No. 1 CLAFLIN REFINING ENGINES, 20 to 25 tons' capacity per 24 hours. Excellent Condition. Very attractive price.

The Champion Fibre Company

Canton **North Carolina**

PAPER MACHINERY FOR SALE

One Pusey & Jones Fourdrinier Part takes wire 126" x 60 feet—equipped with New Century Shake, Millspauch Suction Couch Roll and Connersville Vacuum Pump.
Moore & White four drum Winders
Two 72" nine roll Holyoke Super Calenders
Four 66" nine roll Holyoke Super Calenders
One 48" nine roll Holyoke Super Calender
Four 60" Hamblet Sheet Cutters with Moore & White Layboys
Two Jones Beaters 66 x 57
Complete Marshall Drive for Paper Machine—Pusey & Jones self-contained type with friction clutch, cone pulley and mortise gear.

FRANK H. DAVIS COMPANY
175 Richdale Ave.,
Cambridge, Mass.

MISCELLANEOUS

WISHING to retire from business, will sell controlling interest in a money making tissue paper mill — 86" cylinder machine — close to fine market. Quick action desired. Low price. Address, Box 8353, care Paper Trade Journal. Jn-25

SURPLUS CHEMICALS—OILS—COLORS—DYESTUFFS — GLUES — ACIDS—SOLVENTS — METALS — WAXES — FILLERS, ETC., BOUGHT BY CHEMICAL SERVICE CORP., 1207—50th STREET, BROOKLYN, N. Y. Jn-25

HAVE YOU any odd size Rolls or Sheets to offer, regardless of size or quantity? We are also interested in Damaged Paper—rejected lots—Wood Pulp—Tympan or Offset, either in Rolls or sheets. Submit samples to Goldman Paper and Paper Stock Co., 414 So. Front Street, Philadelphia, Pa. 3-4-26

ODD LOT ROLLS—Any quality width or diameter of rolls of new or used paper. The larger the quantity the better we like it. Address, Box 8241, care Paper Trade Journal. tf

WANTED—Opportunity is offered Philadelphia or New York representative to become financially interested in new mill near Philadelphia. Papeteries and kindred lines. Address, Box 8364, care Paper Trade Journal. Jn-25

WANTED—To hear from reliable paper stock concern in Philadelphia or New York who wish to become interested in new mill. Will use large quantity of white shavings. Located near Philadelphia. Address, Box 8363, care Paper Trade Journal. Jn-25

WANTED

WANT TO PURCHASE a small paper jobbing house. Give particulars. Address, Box 8347, care Paper Trade Journal. Jn-25

WANTED IMMEDIATELY—One second-hand 50" to 62" Slitter and Rewinder. State full particulars. John A. Manning Paper Co., Inc., Troy, N. Y. Jn-25

For Sale

INCINERATORS

2—Manitowoc—New condition

Technical Economist Corp.
40 Rector Street, New York, N. Y.
Telephone Whitehall 5343 Cable Herenco

HALF PRICE
THREE WAY VALVES

200 Brand New All Iron Belfield Transfer Valves, Flanged, Faced and Drilled
4 Inch $9.00 Each
6 Inch $18.00 Each
3,000 New Repair Parts.

WILSON-HOCK CO.
HOPEWELL
VIRGINIA

FOR SALE

PULP MILL PROPOSITION FOR INVESTORS. — We have a property situated on Lake Superior in the Province of Ontario accessible for shipping by Boat and also on both Canadian Railways with brick buildings thereon suitable for a Drum Barking Plant of 300 cords per day and for an 80 ton Groundwood Mill. Negotiations have been made for a large amount of exportable Pulpwood which will be rossed and shipped. We also have the assurance of Crown land wood for a Groundwood Mill and power to operate same. This is a gilt edge proposition for immediate investment. If you would be interested and wish to join us in this project, let us hear from you at once. Your investigation is invited confidentially. Address, Box 8377, care Paper Trade Journal. Jn-25

FOR SALE

1—BADGER WEBRE TRIPLE EFFECT FILM TYPE EVAPORATOR.

2000 square feet, each effect, complete with finishing pan, pumps, condenser, etc. Practically brand new, used one month.

2—4x16 GLENS FALLS SULPHUR BURNERS COMPLETE.

3—ROGERS WET MACHINES.

Send for complete catalogue containing full line of paper mill equipment.

Dept. P.
CONSOLIDATED PRODUCTS COMPANY, Inc.
15 Park Row
New York City, N. Y.
tf

FOR SALE

Paper mill located in Massachusetts, on Taunton River, with wharfage, stockhouses, and about 3½ acres of land.

Equipment includes beaters, breakers, wet machines, screens, boilers, pumps, etc., in perfect condition, ready to run.

Situated perfectly for purchase of raw stock. Labor plentiful.

Further information address Box 7521, Paper Trade Journal.

N-13

EXPORT

Foreign Trade Expert wishes to connect with established Paper Export House. Knows the markets and is well connected here and principally with European Paper Mills. A-1 references. Address, Box 8370, care Paper Trade Journal.

J1-9

POSITION WANTED

as SALES MANAGER or EASTERN REPRESENTATIVE (New York or Philadelphia) for Paper Mill making Book or Fine Papers. Well acquainted with qualities and markets. Very correct in accepting orders and handling of all transactions. Permanent. Highly recommended. Address, Box 8369, care Paper Trade Journal.

J1-9

BOOK PAPER SALESMAN

seeks permanent connection with Mill Agents or Jobbers, New York or Philadelphia, where he can sell regular domestic line and also utilize his own foreign agencies in non-competing Book Papers and Specialties. Has established trade. Salary or commission. Address, Box 8371, care Paper Trade Journal.

J1-9

FOR SALE
At a Sacrificed Price

Board Mill in the East with Round Can Factory all complete and in A-1 condition. Average production Paper Mill—15 tons; Can Factory—18 to 20 thousand cans per 24 hour day. This plant has held its own through all the hard times of recent years. It is now making money and if pushed, its possibilities are unlimited. Being sold on account of owner's ill health. Investigation invited.

Gibbs-Brower Company

Paper and Pulp Mill Brokers

261 Broadway, New York City
Telephone Barclay 8929
166 W. Jackson St., Chicago, Ill.
Telephone Harrison 0151
OUR MOTTO—"Service First."

C. C. HOCKLEY
Consulting Engineer

Paper & Pulp Mills
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Northwestern Bank Building
PORTLAND, OREGON

Let us quote on your PULPWOOD Requirements
Finest quality Spruce, Balsam or mixed. Peeled, or with Bark. Any quantity. Prompt shipment or contract for 1926 delivery.
The Erickson Tie & Lumber Co.
SUDBURY, ONT., CANADA
U. S. Representatives
E. J. BERGER & COMPANY
1402 BROADWAY NEW YORK CITY

Gatti Paper Stock Corporation
41 East 42nd St., New York
Paper and Woolen Mfrs.' Supplies
COTTON AND WOOLEN WASTE
Warehouse—Hoboken, N. J. Branch Office—Holyoke, Mass.

DRAINER BOTTOMS & PERFORATED TILES
For Paper Mills and Filtering Purposes
Lasts indefinitely
No Wood, Splinters or Dust—Drains Quickly and Clean
SAMUEL SNELL COMPANY
Manufacturers Holyoke, Mass.

USED PIPE FOR PAPER CORES

Our guarantee used pipe saves you ⅓ or more. All sizes, cut to any length. First class order. *Relaying Rail*—all weights and sections. *Tanks* for pressure or storage—any size.

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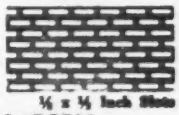

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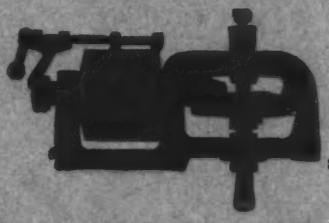

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